



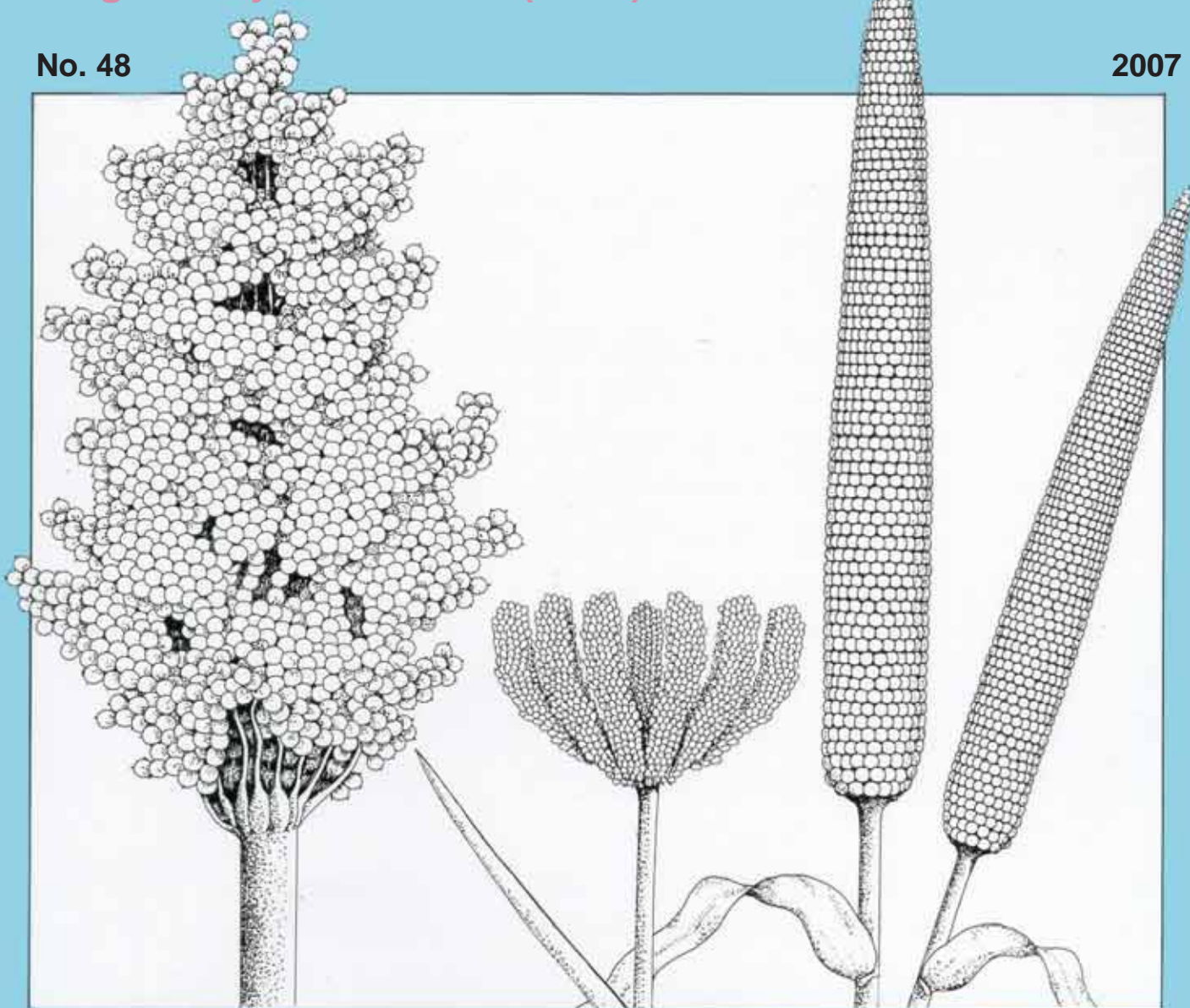
Special Issue

International Sorghum and Millets Newsletter

Characterization of ICRISAT-Bred
Sorghum Hybrid Parents (Set II)

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ISMN Scientific Editor 2007

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ICRISAT, India

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Note: A photo album of ICRISAT-Bred Sorghum Hybrid Parents (Set II) can be found through http://www.icrisat.org/gt-ci/ISMN-48_Specialissue.htm. If there is a specific need to have the entire publication and the photo album on a CD, kindly contact: b.reddy@cgiar.org.

Foreword

For the millions of poor and food insecure people living in the semi-arid tropics (SAT) of Asia, Africa and Latin America, sorghum (*Sorghum bicolor* L. Moench) is an important staple food grain crop. Given its importance as food, feed and fodder, considerable global efforts have gone into improving its productivity through genetic enhancement. The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), established in 1972 at Patancheru, Andhra Pradesh, India, has a global mandate for conserving the genetic resources of sorghum (one of its mandate crops) and enhancing its research in Asia, Africa and Latin America in collaboration with partners in the national agricultural research system (NARS), advanced research institutes (ARIs), private sector seed companies and non-governmental organizations (NGOs).

ICRISAT's vision is to improve the *well-being of the poor of the SAT*. Its research is conducted with the mission of reducing poverty, enhancing food and nutritional security and protecting the environment of the semi-arid tropics by helping empower the poor through science with a human face.

Initially, ICRISAT's focus was on developing pure lines. However, availability of the cytoplasmic-nuclear genetic male-sterility (CMS) system coupled with the demonstration of substantial heterosis for grain and forage yields prompted the Institute to make greater investments in hybrid parents' research in 1978. Since then, several improved hybrid parents have been developed through trait-based breeding, capturing both the crop's geographical and genetic diversities. These products have been shared with NARS partners in the public and private sectors, who in turn have developed and released/marketed a large number of

hybrids for commercial cultivation in Asia, Africa and Latin America. The adoption of hybrids has significantly contributed to increased productivity and on-farm cultivar diversity.

The enactment of the Protection of Plant Varieties Acts in several countries will have significant implications on the International Public Goods (IPGs) nature of improved research products developed by ICRISAT. The Institute seeks to protect its research products by placing them in the public domain and establishing a *prior art* for its research products. As an immediate strategy, ICRISAT will characterize all the available hybrid parents as per the Distinctiveness, Uniformity and Stability (DUS)-test guidelines for sorghum and place them in the public domain.

In an effort towards complying with the mandate of producing IPGs, 302 designated A₁ *milo* and 32 A₂ non-*milo* CMS system-based trait-specific seed parents (A-/B-lines) and 171 restorer parents (R-lines) were characterized during the 2005 rainy and 2005–06 postrainy seasons at ICRISAT, Patancheru, India, for all the traits stipulated in the DUS-test guidelines for sorghum, and for other traits including grain yield.

This special issue of the International Sorghum and Millets Newsletter focuses on the history of the development of sorghum hybrid parents at ICRISAT and their characterization data for the traits stipulated in the DUS-test guidelines.

I am sure this publication will be useful to all sorghum researchers globally.

William D Dar
Director General, ICRISAT

Characterization of ICRISAT-Bred Sorghum Hybrid Parents¹

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I. Introduction

Increased demand for food by a fast-growing human population, the need to sustain biodiversity, and the spurt in private sector investments in agricultural research driven by modern tools for genetic improvement of crop plants has resulted in increased demand for seeking Intellectual Property Rights (IPR) over the products of research. This has led to the introduction of plant variety protection legislations in European countries and in the USA. International efforts to harmonize the IPRs across countries to improve trade has led to various conventions [including Union Pour la Protection des Obtentions Végétales (UPOV) 1991] leading to the establishment of guidelines on Plant Breeder's Rights (PBRs). This was followed by the Uruguay round of deliberations resulting in Trade Related Intellectual Property (TRIPs) rights in 1995. Article 27.3 (b) of TRIPs agreement makes it mandatory for the member countries to provide protection for plant varieties either by patents or by an effective *sui generis* system or any combination thereof for an effective protection of intellectual property.

The Protection of Plant Varieties (PPV) Act, in general, requires registration of plant varieties/hybrids, for which protection is sought. The four essential parameters for granting protection to varieties/hybrids are Novelty (N), Distinctiveness (D), Uniformity (U) and Stability (S). The variety is deemed to be Novel if it is not previously known publicly or not commercially exploited prior to a specific period at the time of seeking protection under the act. Distinctiveness refers to the specific characters of the variety that differentiates it from the other varieties. Uniformity indicates the absence of the intra-genotypic differences within a variety rendering it uniform. Stability denotes the consistent performance of the variety for the traits when tested from season to season, and at different locations. For granting protection to any new variety/hybrid under the PPV act, testing for the three parameters, D, U and S is essential and it is designated as the DUS-testing procedure.

The DUS-testing procedure depends on the crops and their economic importance in various countries or various geographic regions within the countries. In India, the Indian Council of Agricultural Research (ICAR) is the nodal agency for developing the DUS-test guidelines. National Test Guidelines have been developed for 35 crops including sorghum. The National Research Center for Sorghum (NRCS), Hyderabad, India, has developed the DUS-test guidelines for sorghum (Table 1) in consultation with sorghum scientists in India.

The Consultative Group on International Agricultural Research (CGIAR), established in 1971 in response to the demand for food security in developing countries, has a global mandate of conserving the plant genetic resources (PGR) of mandate crops and their improvement for adaptation to targeted geographic regions. The enactment of *sui generis* Protection of Plant Varieties and Farmers Rights (PPV&FR) Acts in several countries will have significant implications on the nature of International Public Goods (IPGs), including improved varieties, breeding lines and hybrid parents, developed by CGIAR centers. ICRISAT has the responsibility of conserving genetic resources and developing improved breeding products of sorghum, pearl millet, chickpea, pigeonpea and groundnut. ICRISAT has to ensure that its improved breeding lines are freely disseminated to public sector and private seed companies, and to the farmers in the semi-arid tropics while preventing others from falsely claiming and getting commercial advantages from it. The revised ICRISAT Material Transfer Agreement (MTA) for breeding materials (products of its own research) includes conditions that the recipient should not seek IPR/ownership of the materials in the form received. In addition, ICRISAT has evolved strategies in consultation with IPR experts that do not unduly impede its main focus of developing and sharing improved research products.

II. Strategy for protecting ICRISAT products

ICRISAT seeks to protect its research products from other parties by placing them in the public domain and establishing a *prior art* for the research products. As an immediate strategy, ICRISAT intends to characterize all the available hybrid parents (689 A/B-lines and 883 R-lines) developed and designated in three phases as per the DUS-test guidelines and place them in public domain

¹Besides the authors, several other scientists [LR House (late), JW Stenhouse, SZ Mukuru (late), KV Ramaiah, MJ Vasudeva Rao, BL Agarwal, DS Murty, Bholanath Verma, H Doggett, R Bandyopadhyay, KF Nwanze, SL Taneja, K Leuschner, R Jambunathan, SD Singh, LK Mughgho, and Suresh Pande] have contributed to the development of the sorghum hybrid parents.

(hard copy and through its website) to make them accessible to all parties interested in increasing the production and productivity of its mandate crops. This process had begun in 2004 and placed 269 A/B-lines and 156 R-lines in 2006 as Set I (Reddy et al. 2006) after characterization.

This publication contains the morphological characterization data of Set II hybrid seed parents (334 A-/B-lines based on A₁ (*milo*) and 171 R-lines) collected for the all the traits as stipulated in the DUS-test guidelines for sorghum (Reddy et al. 2006) and other traits of interest including grain yield. This will be followed by the publication of the morphological characterization data in another set (Set III) by the end of this year.

III. Material and Methods

As per the DUS-test guidelines, hybrid parental lines were categorized in three groups (early, medium and late maturity) based on days to 50% flowering at ICRISAT, Patancheru. Of the 334 A-/B-lines (pedigrees provided in Table 2), 70 high-yielding, 121 disease resistant and 74 insect pests resistant A-/B-lines were placed in two/three groups. Of the remaining 69 A-/B-lines, 37 *milo* CMS system-based A-/B-lines (22 *Striga* resistant, nine acid soil tolerant, five stay green lines and one tillering line), and 32 non-*milo* CMS system-based A-/B-lines (20 A₂, eight A₃ and four A₄) were placed in one group each as there were fewer entries for each trait/cytoplasm (Table 3). As did for A-/B-lines, the 171 designated R-lines were placed in three maturity groups (Table 4).

These hybrid parents were evaluated during the 2005 rainy and postrainy seasons in high fertile Vertisols (deep black soils) at the experimental fields of ICRISAT, Patancheru, India. The experimental site is located at an altitude of 545 m above mean sea level, latitude of 17.53°N and longitude of 78.27°E. The site receives an average annual rainfall of 897.14 mm (average of 32 years from 1974 to 2005). The entries were planted in two rows, 2-meter long with row spacing of 0.75 m and 0.1 m between plants within a row, following a randomized complete block design (RCBD) in three replications. The planting was carried out on 30 June (A/B-lines) and 4 July (R-lines) in rainy season 2005 and on 11 November (both A/B-lines and R-lines) in postrainy season 2005. The recommended crop production and protection packages were followed to raise a healthy crop.

Data collection. The data were recorded for all the 41 traits (except grain tannin content) as stipulated in the DUS-test guidelines (Reddy et al. 2006). The tannin content of the grain was not estimated as most of the lines are white sorghums, which do not contain tannins (Rooney 2005). Data were also recorded on other useful traits (ancillary) (not stipulated in the DUS-test guidelines for sorghum) such as days to seedling emergence, seedling vigor, leaf glossiness, plant agronomic aspect, panicle and grain yields and stability of male-sterility. The data on stability of male sterility in A-lines as assessed by selfed seed set (%) under high atmospheric temperatures (>42°C) (as per details in Table 5) were collected in an unreplicated nursery during summer 2006. Owing to the poor grain quality in rainy season (1006 mm rain fall during crop period) data on grain traits (grain color, grain shape, grain germ size, endosperm texture, albumen color, grain lustre and 1000-grain mass) could not be recorded. However, the data on all the traits were recorded in the postrainy season. The replication-wise data (averaged over individual plants) for days to seedling emergence, seedling vigor, leaf glossiness, plant agronomic aspect, 1000-grain mass (g), and panicle and grain yields were subjected to analyses of variance. For other traits, mean scores across replications are presented (Annexure I-1 to I-14).

The data recorded in 1990 on A-/B-lines for which different trait-specific A-/B-lines were bred are presented in the respective tables. Recording for the following traits were made: leaf and panicle anthracnose severity (recorded on a 1 to 9 scale, where 1 = no anthracnose lesions and 9 = >75% of area covered with anthracnose lesions), leaf blight and leaf rust (recorded on a 1 to 9 scale, where 1 = leaf lamina free from disease and 9 = >75% of leaf lamina affected with disease), panicle grain mold score (recorded on a 1 to 9 scale, where 1 = <5% mold infected grain, and 9 = >75% mold infected grains on the panicle) and threshed grain mold score (recorded on a 1 to 9 scale, where 1 = no mold on the surface of the grain and 9 = >75% surface of the grains with mold after panicle threshing), downy mildew incidence (% infected over healthy plants), stem borer leaf feeding score (20 days after borer infestation taken on a 1 to 9 scale, where 1 = 10% of leaf area damaged and 9 = >75% of leaf area damaged), midge damage score taken on caged heads and open-heads under field conditions (taken on a 1 to 5 scale, where 1 = <10% chaffy spikelets and 5 = >75% chaffy spikelets), head bug score (taken on a 1 to 5 scale,

where 1 = a few grains with head bug feeding punctures and 9 = most of the grains with 60% shriveling due to head bug damage), shoot fly dead hearts % and stem borer dead hearts % (over healthy plants), *Striga* count, acid soil tolerance as assessed by drought tolerance score (on a 1–5 scale, where 1 = least scorched leaves and 5 = severely scorched leaves and no recovery) taken at Matazul center of Centro Internacional de Agricultura Tropical (CIAT), the Spanish acronym for International Center for Tropical Agriculture located at Cali, Colombia, stay green score (taken on a 1–5 scale, where 1 = most green and 5 = least green) and tillering ability (which is expressed when the lines receive adequate moisture after early drought stress). The data recording guidelines for insect pest damage are given by Sharma et al. (1992), Sharma and Nwanze (1997), Teetes et al. (1980) and Sharma et al. (2003).

Besides these, earlier recorded data on A-/B- and R-lines for a few of the agronomic traits (monitored) such as plant color (tan/non-tan), grain pericarp thickness (thick/thin), and grain hardness [determined as force (in kgs) required to break the grain using Kiya's grain hardness tester] and on A-lines for seed set (%) under open pollination where available are reported.

Acknowledgments. We are thankful to B Ramaiah for compilation of data, statistical analysis, and tabulation of results. We are also thankful to K Devendram and AS Arpana who assisted in efficient conduct of the trials and data entry respectively.

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Table 1. Description of characters and the type of measurements as per the DUS-test guidelines for sorghum¹.

Sl. No.	Characteristics	States	Node ²	Stage of observation	Type of assessment ³
1	Seedling: anthocyanin colouration of coleoptile	green purple	1 2	seedling	VS
2	Leaf sheath: anthocyanin colouration	tan red purple	1 2 3	5 leaf	VS
3	Leaf : midrib color (5 th fully developed leaf)	white dull green yellow brown purple	1 2 3 4 5	5 leaf	VS
4 (*)	Plant: time of panicle emergence (50% of the plants with complete panicle emergence)	very early (<56 days) early (56–65 days) medium (66–75 days) late (76–85 days) very late (>85 days)	1 3 5 7 9	panicle emergence	VG
5	Plant: natural height of foliage up to the base of flag leaf	very short (<76 cm) short (76–150 cm) medium (151–225 cm) tall (226–300 cm) very tall (>300 cm)	1 3 5 7 9	panicle emergence	MS
6 (*)	Flag leaf: extension of discoloration of midrib	absent or very weak weak medium strong very strong	1 3 5 7 9	panicle emergence	VG
7 (*)	Flag leaf: intensity of green coloration of midrib compared to blade (if not discolored)	paler same colour darker	1 2 3	panicle emergence	VG
8 (*)	Flag leaf: yellow coloration of midrib	absent or weak medium strong	1 5 9	panicle emergence	VS
9	Glume: anthocyanin colouration of pubescence (a covering of soft and short hair)	absent or weak medium strong	1 5 7	flowering	VS
10 (*)	Lemma: arista formation	absent or weak medium strong	1 5 9	flowering	VS
11 (*)	Stigma: anthocyanin coloration	absent or weak medium strong	1 5 9	flowering	VS

contd.

Sl. No.	Characteristics	States	Node ²	Stage of observation	Type of assessment ³
12 (*)	Stigma: yellow coloration	absent or weak medium strong	1 5 7	flowering	VS
13	Stigma: length	short medium long	3 5 9	flowering	MS
14	Flower with pedicel: length of flower	very short short medium long very long	1 3 5 7 9	flowering	MS
15	Anther: length	short medium long	3 5 7	flowering	MS
16	Anther: color of dry anther	yellow pink grey dark yellow orange red	1 2 3 4 5	end of flowering	VG
17 (*)	Glume: color	green straw brown light red red yellow purple black	1 2 3 4 5 6 7 8	physiological maturity	VG
18(*)	Plant: height	very short (<76 cm) short (76–150 cm) medium (151–225 cm) long (226–300 cm) very long (>300 cm)	1 3 5 7 9	maturity	MS
19	Stem: diameter (at lower one third height of plant)	small (<2 cm) medium (2–4 cm) large (>4 cm)	3 5 7	maturity	MS
20	Stalk: juiciness	juicy dry	1 2	maturity	
21	Stalk: sweetness	sweet insipid	1 2	maturity	

contd.

Sl. No.	Characteristics	States	Node ²	Stage of observation	Type of assessment ³
22	Leaf: length of blade of the third leaf from top	short (<41 cm) medium (41–60 cm) long (61–80 cm) very long (>80 cm)	3 5 7 9	maturity	MS
23	Leaf: width of blade of the third leaf from top	narrow (<4.1 cm) medium (4.1–6.0 cm) broad (6.1–8.0 cm) very broad (>8.0 cm)	3 5 7 9	maturity	MS
24	Panicle: length without peduncle	very short (<11 cm) short (11–20 cm) medium (21–30 cm) long (31–40 cm) very long (>40 cm)	1 3 5 7 9	maturity	MS
25	Panicle: length of branches (middle third of panicle)	short (<5.1 cm) medium (5.1–10 cm) long (10.1–15 cm) very long (>15 cm)	3 5 7 9	maturity	MS
26 (*)	Panicle: density at maturity (ear head compactness)	very loose loose semi loose semi compact compact	1 3 5 7 9	maturity	VG
27 (*)	Panicle: shape	reversed pyramid panicle broader in upper part symmetric panicle broader in lower part pyramidal	1 2 3 4 5	maturity	VG
28 (*)	Neck of panicle: visible length above sheath	absent or very short (<5.1 cm) short (5.1–10 cm) medium (10.1–15 cm) long (15.1–20 cm) very long (>20cm)	1 3 5 7 9	maturity	MS
29	Glume: length	very short (25% of grain covered) short (50% of grain covered) medium (75% of grain covered) long (100% of grain covered) very long (longer than the grain)	1 3 5 7 9	maturity	MS

contd.

Sl. No.	Characteristics	States	Node ²	Stage of observation	Type of assessment ³
30	Shattering	low medium high	3 5 7	maturity	VG
31	Threshability	freely threshable <11% unthreshed grain) partly threshable (11–50% unthreshed grain) difficult to thresh (>50% unthreshed grain)	1 5 7	maturity	VG
32	Grain: form	Single Twin	1 2	maturity	VS
33 (*)	Caryopsis: color after threshing	white chalky white pearly white yellow red light brown dark brown	1 2 3 4 5 6 7	after threshing	VG
34	Grain: weight of 1000 grains	very low (<16 g) low (16–25 g) medium (26–35 g) high (36–45 g) very high (>45 g)	1 3 5 7 9	after threshing	MG
35	Grain: shape in dorsal view	narrow elliptic elliptic circular	1 2 3	after threshing	VG
36	Grain: shape in profile view	narrow elliptic elliptic circular	1 2 3	after threshing	VG
37	Grain: size of mark of germ	very small small medium large very large	1 3 5 7 9	after threshing	VG
38	Grain: content of tannin	absent or very low low medium high very high	1 3 5 7 9	after threshing	MG

contd.

Sl. No.	Characteristics	States	Node ²	Stage of observation	Type of assessment ³
39	Grain: texture of endosperm (in longitudinal section)	fully vitreous (100% corneous) ¾ vitreous (75% corneous) half vitreous (50% corneous) ¾ farinaceous (25% corneous) fully farinaceous (0% corneous)	1 3 5 7 9	after threshing	VG
40	Grain: color of vitreous albumen	white pale yellow yellow orange	1 2 3 4	after threshing	VG
41	Grain: lustre	non-lustrous medium lustrous	1 5 7	after threshing	VG

*Characteristics that should be observed every growing season for the examinations of all lines and should always be included in the description of the material, except when the state of expression of a preceding characteristic or regional environmental conditions render this impossible.

¹Source: www.plantauthority.in/crop_list.htm#

²Nodes (1 to 9) are for the purpose of electronic data processing.

³Type of assessment of characteristics.

MG: Measurement by a single observation of a group of plants or parts of plants.

MS: Measurement of a number of individual plants or plant parts.

VG: Visual assessment by single observation of a group of plants or plant parts.

VS: Visual assessment by observation of individual plants or plant parts.

List of observations deviated from the DUS-test guidelines for sorghum listed in Table 1.

Sl. No.	Characteristics	DUS-testing		ICRISAT	
		States	Node	States	Node
3	Leaf : midrib color (5 th fully developed leaf)	white dull green yellow brown purple	1 2 3 4 5	brown green white	1 2 3
10 (*)	Lemma: arista formation	absent or weak medium strong	1 5 9	absent or weak short medium Long	1 3 5 9
16	Anther: color of dry anther	yellow pink grey dark yellow orange red	1 2 3 4 5	yellow pink grey dark yellow orange red light orange dark orange	1 2 3 4 5 6 7
21	Stalk: Sweetness	sweet insipid	1 2	Brix reading (%)	
33	Caryopsis: color after threshing	white chalky white pearly white yellow red light brown dark brown	1 2 3 4 5 6 7	white chalky white pearly white light yellow/yellow red light brown/brown dark brown cream light red	1 2 3 4 5 6 7 8 9
40	Grain: color of vitreous albumen	White pale yellow yellow orange	1 2 3 4	White pale yellow yellow purple	1 2 3 4

For characteristics 4, 5, 18, 19, 21 to 25, 28, 29 and 34 actual values are presented in Tables instead of node values.

Table 2. Pedigrees of ICRISAT-bred designated sorghum A-/B-, and R-lines characterized at ICRISAT, Patancheru, India as per DUS¹ test guidelines.

Sl. No.	Designation	Pedigree
High-yielding (early-maturity) sorghum B-lines		
1	ICSB 7	[(BTx 623 × UChV2)B lines bulk]-10-1-4
2	ICSB 10	[(BTx 623 × UChV2)B lines bulk]-10-1-2
3	ICSB 25	[(BTx 623 × CSV 4)B lines bulk]-1-1-3
4	ICSB 36	[(MR 807 × BTx 678)B lines bulk]-6-1-3-5
5	ICSB 57	US/B 37-600-2
6	ICSB 615	(ICSB 3 × SAR 35)44-2
7	ICSB 619	[(ICSB 3 × SAR 35) × ICSB 3]5-2-2-1
8	ICSB 622	(ICSB 6 × IS 29016)15-2-1-1-1
9	ICSB 623	(ICSB 11 × PM 17467B)5-1-2-1
10	ICSB 625	(ICSB 11 × IS 2815)5-1
11	ICSB 628	(ICSB 37 × IS 21599)12-1-2-2
12	ICSB 630	(ICSB 54 × SAR 35)57-2
13	ICSB 634	IS 10288B
14	ICSB 635	IS 10315B
15	ICSB 636	IS 10438B
16	ICSB 644	(ICSB 6 × IS 18432)13-1-2-1-2
17	ICSB 647	(ICSB 6 × IS 18432)13-1-2-2-2
18	ICSB 88003	[(ICSB 22 × ICSB 53) × Diallel 7-2-862]-1-5
19	ICSB 88019	(IS 152 × DJ 6514)-8-1-1-1-1
20	ICSB 88020	(FLR 101 × DJ 6514)-13-1-1-2-1
High-yielding (medium-maturity) sorghum B-lines		
1	ICSB 2	[(SC 108-3 × 148) IS 9327]-22-1-2-2
2	ICSB 3	[(BTx 622 × UChV2)B lines bulk]-4-2-1-1
3	ICSB 15	[(BTx 678 × UChV2)B lines bulk]-3-2-5-3
4	ICSB 17	[(BTx 623 × 1807B)B lines bulk]-18-1-1
5	ICSB 19	[(BTx 623 × 1807B)B lines bulk]-18-3-4
6	ICSB 20	[(BTx 623 × CSV 4)B lines bulk]-4-2-5
7	ICSB 23	[(BTx 623 × CSV 4)B lines bulk]-7-2-4
8	ICSB 24	[(BTx 623 × CSV 4)B lines bulk]-7-4-3
9	ICSB 29	[(MR 876 × BTx 678)B lines bulk]-11-4-3
10	ICSB 34	[(MR 807 × BTx 624)B lines bulk]-5-5-1-2
11	ICSB 41	[(BTx 623 × MR 862)B lines bulk]-5-3-6-2
12	ICSB 47	Rs/B 933-4
13	ICSB 54	Diallal 346-8556-2-1
14	ICSB 59	DH 519-18-1-6-3
15	ICSB 67	[(IS 12645C × CSV 4) × IS 9327]-27-2-2-3
16	ICSB 82	(Ind. Syn. 422-1 × US/R-20-682)-5-1-3-1
17	ICSB 94	[(296B × SPV 105) × (2077B × M 35-1)]-21
18	ICSB 617	[(ICSB 3 × SAR 35) × ICSB 3]3-4
19	ICSB 618	[(ICSB 3 × SAR 35) × ICSB 3]3-4-1-1
20	ICSB 620	(ICSB 6 × IS 18432)1-2-2-2-1
21	ICSB 621	(ICSB 6 × IS 18432)13-2-1-2
22	ICSB 626	(ICSB 11 × IS 2815)44-3-1-1
23	ICSB 637	IS 10440B
24	ICSB 638	(ICSB 6 × IS 18425)1-1-2
25	ICSB 639	(ICSB 6 × IS 18525)4-1-1-2
26	ICSB 640	(ICSB 6 × IS 18525)4-1-2-2
27	ICSB 643	(ICSB 6 × IS 18432)13-1-2-1-1
28	ICSB 645	(ICSB 6 × IS 18432)13-1-2-2-1
29	ICSB 646	(ICSB 6 × IS 18432)13-1-2-2-1-1

contd.

Sl. No.	Designation	Pedigree
30	ICSB 648	(ICSB 6 × IS 18432)13-1-2-3-3
31	ICSB 649	[(ICSB 6 × IS 18432)13-3 × {296 B × (296 B × QL 3)}27-2-1-7-2-5-1]3-1
32	ICSB 650	[(ICSB 6 × IS 18432)13-3 × {296 B × (296 B × QL 3)}27-2-2-2-6-2-2-1]1
33	ICSB 658	(ICSB 37 × PM 17500-2-1)9-1-1-1-4
34	ICSB 660	(ICSB 51 × ICSV 700)9-4-2-1
35	ICSB 663	[(ICSB 101 × QL 3) × (ICSB 6 × PM 17467B)]3-1-1-3-2-2
36	ICSB 665	[296 B × (296 B × QL 3)]28-3-3-2-1-1-2
37	ICSB 666	[(IS 18425 × ICSB 6) × PM 17467B]4-5-1-2
38	ICSB 668	[(IS 18425 × ICSB 6) × PM 17467B]11-3-1-2-5-2
39	ICSB 88004	[(ICSR 87 × ICSR 37) × ICSB 12]-4-2-1-1
40	ICSB 88005	[(ICSB 11 × ICSB 7) × DM 50]-1-1-1-1
41	ICSB 88006	[(ICSB 11 × ICSB 7) × DM 50]-1-3-1-3
42	ICSB 88008	[(ICSB 4 × ICSB 13) × ICSB 7]-4-1-1-2
43	ICSB 88009	[(ICSB 4 × ICSB 13) × ICSB 7]-4-4-5-1
44	ICSB 88012	(Ind. Syn. 89-1 × Ind. Syn. 89-2-2)-2-2
45	ICSB 88014	(BTx 622 × 2219B)-2-1-2-1-2
46	ICSB 88015	(BTx 622 × 2219B)-2-1-2-1-3
47	ICSB 89002	(Ind. Syn. 422-1 × Rs/R-20-682)-5-1-6-2-1
48	ICSB 90002	[ICSB 3 × ((BTx 678 × UChV2)B lines bulk)-3-4 × ICSR 7]-5
49	ICSB 90004	[(IS 5604 × 23/2 × CSV 4) × CSV 4]-3-1-1-1-1
50	ICSB 91004	[(ICSB 3 × ICSR 72) × (ICSB 11)]-9-4-2-2
Disease-resistant (early-maturity) sorghum B-lines		
1	ICSB 208	[(ICSB 37 × SP 36257)5-2-2-2 × 296 B × (296 B × QL 3)27-2-2-6-2-3-1]-1
2	ICSB 268	[(ICSB 11 × TRL 74/C 57) × ICSB 6]7-5-1-3-2
3	ICSB 311	[(ICSB 101 × TRL 74/C 57) × PM 17467B]3-2-1-2-2
4	ICSB 329	(ICSB 11 × PM 1861)4-4-1-1
5	ICSB 363	(ICSB 11 × IS 2815)25-1-3-1-2
6	ICSB 364	(ICSB 11 × IS 2815)25-1-3-2
7	ICSB 373	(ICSB 11 × IS 2815)34-1-2
8	ICSB 375	(ICSB 11 × IS 2815)43-1-1-2
9	ICSB 380	(ICSB 11 × IS 2815)61-2-1-2-1-1
10	ICSB 385	(ICSB 17 × IS 21599)14-1-2-3-2
11	ICSB 386	(ICSB 17 × IS 21599)32-1-1-3-4-2
12	ICSB 388	(ICSB 37 × IS 21599)4-1-3-2-1-2
13	ICSB 390	(ICSB 37 × IS 21599)14-1-3-3
14	ICSB 408	(IS 3436 × PQ 35B)8-1-1-2-2-1
Disease-resistant (medium-maturity) sorghum B-lines		
1	ICSB 202	(ICSB 37 × SP 36257)5-2-1-1-1-1
2	ICSB 216	(296 B × QL 3)1-2-6-2
3	ICSB 217	(296 B × QL 3)5-1-3-2
4	ICSB 218	(296 B × QL 3)27-2-1-2
5	ICSB 220	[296 B × (296 B × QL 3)]27-2-1-2-2-2-2
6	ICSB 223	[296 B × (296 B × QL 3)]27-2-12-9-2-2-1
7	ICSB 224	[296 B × (296 B × QL 3)]27-2-12-9-3-2
8	ICSB 225	[296 B × (296 B × QL 3)]27-2-1-2-9-3-4
9	ICSB 226	[296 B × (296 B × QL 3)]27-2-1-2-9-6-4-1
10	ICSB 227	[296 B × (296 B × QL 3)]27-2-1-2-9-6-3
11	ICSB 228	[296 B × (296 B × QL 3)]27-2-1-2-9-5
12	ICSB 229	[296 B × (296 B × QL 3)]27-2-1-4-6-4-1
13	ICSB 230	[296 B × (296 B × QL 3)]27-2-1-7-1-1-3
14	ICSB 231	[296 B × (296 B × QL 3)]27-2-1-7-1-2-1-1
15	ICSB 245	[296 B × (296 B × QL 3)]28-3-3-2-1-1-1-3-1
16	ICSB 249	[296 B × (296 B × QL 3)]28-3-3-5-1-1-1
17	ICSB 251	[296 B × (296 B × QL 3)]28-3-3-5-1-3-2

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Sl. No.	Designation	Pedigree
18	ICSB 252	[296 B × (296 B × QL 3)]28-3-3-5-1-1-4-1
19	ICSB 253	[296 B × (296 B × QL 3)]28-3-3-5-1-1-6-1
20	ICSB 255	[296 B × (296 B × QL 3)]28-3-6-5-3-2-2
21	ICSB 256	[296 B × (296 B × QL 3)]28-3-6-11-1-4-1
22	ICSB 260	[(ICSB 11 × TRL 74/C 57) × PM 17467B]6-1-1-1
23	ICSB 262	[(ICSB 11 × TRL 74/C 57) × ICSB 6]6-4-2-1
24	ICSB 263	[(ICSB 11 × TRL 74/C 57) × ICSB 6]6-4-2-2
25	ICSB 265	[(ICSB 11 × TRL 74/C 57) × ICSB 6]7-5-1-2
26	ICSB 267	[(ICSB 11 × TRL 74/C 57) × ICSB 6]7-5-1-3-2
27	ICSB 270	[(ICSB 11 × TRL 74/C 57) × ICSB 6]12-2-2-1
28	ICSB 271	[(ICSB 26 × TRL 74/C 57) × ICSB 88001]1-1-2-2
29	ICSB 277	[(ICSB 101 × TRL 74/C 57) × PM 17467B]2-5-1-4-1
30	ICSB 278	[(ICSB 101 × TRL 74/C 57) × PM 17467B]2-5-1-4
31	ICSB 279	[(ICSB 101 × TRL 74/C 57) × PM 17467B]3-1-7-1
32	ICSB 282	[(ICSB 101 × TRL 74/C 57) × PM 17467B]8-4-1-3-2
33	ICSB 283	[(ICSB 101 × TRL 74/C 57) × PM 17467B]8-4-1-3-2
34	ICSB 284	[(ICSB 101 × TRL 74/C 57) × PM 17467B]8-4-1-4-1
35	ICSB 285	[(ICSB 101 × TRL 74/C 57) × PM 17467B]8-4-1-4-2
36	ICSB 286	[(ICSB 101 × TRL 74/C 57) × PM 17467B]8-4-1-4-2
37	ICSB 287	[(ICSB 101 × TRL 74/C 57) × PM 17467B]8-4-1-4-2-2
38	ICSB 288	[(ICSB 101 × TRL 74/C 57) × PM 17467B) × ICSB 89004]1
39	ICSB 289	[(ICSB 101 × TRL 74/C 57) × PM 17467B) × ICSB 89004]2
40	ICSB 290	[(ICSB 101 × TRL 74/C 57) × PM 17467B) × ICSB 89004]8-4-1-4
41	ICSB 291	[(ICSB 101 × TRL 74/C 57) × ICSB 88001) × ICSB 34]6-1
42	ICSB 292	[(ICSB 101 × A 2267-2) × PM 17467B]2-2-1-4-2
43	ICSB 294	[(ICSB 101 × A 2267-2) × PM 17467B]8-4-1-4-1
44	ICSB 295	[(IND.SYN 422-1B × MR 849) × (BTx 623 × UCHV 2) × BB × (SC 108-3 × CSV 1) × E 35-1]2-1
45	ICSB 296	(ICSB 11 × PM 1861)9-1-1-1
46	ICSB 298	[(ICSB 11 × TRL 74/C 57) × ICSB 6]12-2-2-2
47	ICSB 299	(ICSB 26 × PM 1861)4-1-1-1
48	ICSB 302	[(ICSB 26 × PM 1861) × (ICSB 22 × ICSB 45) × (ICSB 52 × ICSB 51)]1-3-1-3-6-1
49	ICSB 312	[(ICSB 101 × TRL 74/C 57) × PM 17467B]6-1-1-1
50	ICSB 313	[(ICSB 101 × TRL 74/C 57) × PM 17467B]8-4-1-3-2
51	ICSB 314	[(ICSB 101 × TRL 74/C 57) × PM 17467B]8-4-1-3-2-1
52	ICSB 315	[(ICSB 101 × TRL 74/C 57) × PM 17467B]8-4-1-4-1
53	ICSB 316	[(ICSB 101 × TRL 74/C 57) × PM 17467B]8-4-1-4-2
54	ICSB 317	[(ICSB 101 × TRL 74/C 57) × PM 17467B]8-4-1-4-2-2
55	ICSB 320	[(IS 23493 × SPV 351) × MR 940]8-2
56	ICSB 322	(IS 29016 × ICSB 26)1-2-2
57	ICSB 330	(ICSB 11 × PM 1861)8-2-2-1
58	ICSB 331	(ICSB 26 × PM 1861)4-1-2-1-2
59	ICSB 332	(ICSB 26 × PM 1861)4-1-2-1-1
60	ICSB 335	(ICSB 26 × PM 1861)5-3-2
61	ICSB 337	(ICSB 51 × PM 1861)2-1-1
62	ICSB 338	(ICSB 51 × PM 1861)4-1-2-2
63	ICSB 341	[(ICSB 101 × TRL 74/C 57) × PM 17467B]2-5-1-3-1
64	ICSB 344	[(ICSB 101 × TRL 74/C 57) × PM 17467B]8-4-1-3-1
65	ICSB 346	[(ICSB 101 × TRL 74/C 57) × PM 17467B]8-4-1-4-2
66	ICSB 347	[(ICSB 101 × TRL 74/C 57) × PM 17467B]8-4-1-4-1
67	ICSB 349	[(IS 18417 × ICSB 11) × ICSB 45) × ICSB 30]1-2-1
68	ICSB 352	(ICSB 11 × IS 2815)2-1-2-1-1
69	ICSB 354	(ICSB 11 × IS 2815)4-1-3-2
70	ICSB 356	(ICSB 11 × IS 2815)16-2-1-1
71	ICSB 357	(ICSB 11 × IS 2815)16-2-2-2

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Sl. No.	Designation	Pedigree
72	ICSB 359	(ICSB 11 × IS 2815)20-3-2-2-1
73	ICSB 360	(ICSB 11 × IS 2815)20-3-2-2-2
74	ICSB 365	(ICSB 11 × IS 2815)25-2-2-2
75	ICSB 372	(ICSB 11 × IS 2815)34-1-1
76	ICSB 377	(ICSB 11 × IS 2815)48-1-1
77	ICSB 387	(ICSB 37 × IS 21599)4-1-1-1
78	ICSB 389	(ICSB 37 × IS 21599)14-1-2-1-2
79	ICSB 395	(ICSB 37 × IS 10475B)11-1-1-2
80	ICSB 397	(ICSB 37 × IS 10475B)12-2-1-1-1-2-1
81	ICSB 398	(ICSB 37 × IS 10475B)12-2-1-1-1-2
82	ICSB 399	[(ICSB 37 × IS 2501) × ICSB 11]1-1-2
83	ICSB 407	(IS 3436 × PQ 35B)5-1-1-2-1-1
Disease-resistant (late-maturity) sorghum B-lines		
1	ICSB 209	[(ICSB 37 × SP 36257)5-2-4-2-1 × 296 B × (296 B × QL 3)27-2-2-6-2-2]-2
2	ICSB 211	(ICSB 37 × IS 18757)3-1-1-2-1-2
3	ICSB 212	(ICSB 51 × IS 18757)2-1-2
4	ICSB 214	[(ICSB 101 × IS 18757) × ICSB 6]9-1
5	ICSB 219	(296 B × QL 3)27-2-2
6	ICSB 221	[296 B × (296 B × QL 3)]27-2-12-3-6-1
7	ICSB 232	[296 B × (296 B × QL 3)]27-2-1-7-1-2-3-1
8	ICSB 234	[296 B × (296 B × QL 3)]27-2-1-7-2-2-4-1
9	ICSB 238	[296 B × (296 B × QL 3)]27-2-1-7-2-8-3-2
10	ICSB 239	[296 B × (296 B × QL 3)]27-2-1-7-2-10-1-2
11	ICSB 240	[296 B × (296 B × QL 3)]27-2-2-6-2-1-2
12	ICSB 241	[296 B × (296 B × QL 3)]27-2-2-6-3-2-1
13	ICSB 242	[296 B × (296 B × QL 3)]27-2-2-6-3-2-1-3
14	ICSB 246	[296 B × (296 B × QL 3)]28-3-3-2-3-5-2-2
15	ICSB 248	[296 B × (296 B × QL 3)]28-3-3-3-4-1-5
16	ICSB 257	[296 B × (296 B × QL 3)]28-3-6-11-1-4-2
17	ICSB 258	[296 B × (296 B × QL 3)]28-3-10-1-2-3-1-4
18	ICSB 259	[296 B × (296 B × QL 3)]29-6-7-2-4-1
19	ICSB 306	[(ICSB 26 × PM 1861) × (ICSB 22 × ICSB 45) × (ICSB 52 × ICSB 51)]1-3-7-3-1
20	ICSB 307	[(ICSB 26 × PM 1861) × (ICSB 22 × ICSB 45) × (ICSB 52 × ICSB 51)]1-3-12-3-1
21	ICSB 308	[(ICSB 26 × PM 1861) × (ICSB 22 × ICSB 45) × (ICSB 52 × ICSB 51)] 1-3-12-2-1-2
22	ICSB 309	(ICSB 70 × PM 1861)5-1
23	ICSB 310	(ICSB 70 × PM 1861)10-1
24	ICSB 319	(ICSB 102 × ICSV 700)5-4-1-1-2-4
Stress (<i>Striga</i>) tolerant (early-maturity) sorghum B-lines		
1	ICSB 567	(ICSB 3 × SAR 35)57-1-2-1-1-1-1
2	ICSB 568	[(ICSB 3 × SAR 35) × ICSB 3]5-2-2-2-1
3	ICSB 569	[(ICSB 3 × SAR 35) × ICSB 3]44-2-1-1-2
4	ICSB 571	(ICSB 11 × SAR 1)4-1-1-1-2
5	ICSB 572	(ICSB 11 × SAR 1)4-1-2-1-1-1-1
6	ICSB 584	(ICSB 26 × SAR 16)10-2-1-1-2
7	ICSB 594	(ICSB 54 × SAR 35)44-3-2-2-1-2-2-1
8	ICSB 598	(ICSB 54 × SAR 35)44-3-2-1-4-2
9	ICSB 599	(ICSB 101 × SAR 16)6-2-1-2-1
Tillering (early-maturity) sorghum B-line		
10	ICSB 671	IS 804-2B
Stay-green (early-maturity) sorghum B-line		
11	ICSB 682	(ICSB 37 × IS 21599)12-1-2-2

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Sl. No.	Designation	Pedigree
Stress (<i>Striga</i>) tolerant (medium-maturity) sorghum B-lines		
1	ICSB 566	(ICSB 3 × SAR 35)26-1-2-2-2-2
2	ICSB 573	(ICSB 11 × SAR 1)4-1-2-1-2-1
3	ICSB 574	[(ICSB 11 × SAR 1) × ICSB 9] × ICSB 101]1-2-3-1-1
4	ICSB 575	[(ICSB 11 × SAR 1) × ICSB 9] × ICSB 101]1-2-3-2
5	ICSB 580	(ICSB 26 × SAR 16)2-2-1-1
6	ICSB 581	(ICSB 26 × SAR 16)4-1-1-1
7	ICSB 582	(ICSB 26 × SAR 16)4-1-1-2-2
8	ICSB 585	[(ICSB 34 × SAR 35) × SAR 35]18-1-1-2-1-1
9	ICSB 586	[(ICSB 34 × SAR 35) × SAR 35]18-1-1-2-1-2
10	ICSB 588	[(ICSB 34 × SAR 35) × SAR 35]18-1-1-2-2-2
11	ICSB 590	(ICSB 37 × SAR 34)7-1-2-5
12	ICSB 595	(ICSB 54 × SAR 35)44-3-2-2-3-1-1-1
13	ICSB 597	(ICSB 54 × SAR 35)44-3-2-1-3-1-2
Acid soil tolerant (medium-maturity) sorghum B-lines		
14	ICSB 600	(BTx 622 × 2219B)-2-1-2-1-3
15	ICSB 601	[(BTx 623 × MR 862) × B lines bulk]-5-1-3-5
16	ICSB 602	[(ICSB 3 × ICSR 72) × ICSB 11]-9-4-2
17	ICSB 603	[(ICSB 11 × PM 17500-2-1) × PM 17467B]1-1-1-1
18	ICSB 605	[(ICSB 11 × PM 17500-2-1) × PM 17467B]5-2-1-1
19	ICSB 606	[(ICSB 26 × PM 17467B) × PM 17467B]10-3-1-2
20	ICSB 610	[(C 85-2 × SPV 475) × ICSR 108]5-2-1
21	ICSB 612	ICSPI B/R MFR 55-304-1-4-5-1
22	ICSB 614	(SC 108-3 × CSV 4)-51-1
Stay-green (medium-maturity) sorghum B-lines		
23	ICSB 676	(E 36-1 × ICSB 17)12-3-1
24	ICSB 679	((PS 14413 × ICSV 112)-3-1-1-1 × 296 B)3-1
25	ICSB 680	((PS 14413 × ICSV 112)-3-1-1-1 × 296 B)6-1
26	ICSB 685	(ICSB 54 × SAR 35)44-3-2-2-3
Non-milo (medium-maturity) sorghum B-lines (A₂)		
1	ICSB 688	(ICSB 6 × IS 18525)4-1-1-2
2	ICSB 694	(ICSB 37 × IS 10475B)4-3-2
3	ICSB 696	(ICSB 37 × PM 17500-2-1)11-1-2-1
4	ICSB 698	[(ICSB 37 × ICSV 702) × PS 19349B]3-4-1-1
5	ICSB 700	(ICSB 42 × IS 23585)2-1-4
6	ICSB 701	(ICSB 51 × ICSV 705)10-4-1-4-1
7	ICSB 705	[(ICSB 101 × TRL 74/C 57) × PM 17467B]8-4-1-1
8	ICSB 706	[(ICSB 101 × PM 17500-2-1) × PM 19268B]1
9	ICSB 708	[(ICSB 101 × IS 467) × (ICSB 6 × PM 17467B)]9-1-3-1-2-1
10	ICSB 710	[DKV 74 × (PB 10858 × DKV 74)]5-1-1-1
11	ICSB 714	(IS 2914 × ICSB 38)4-2-1-2-1-1
12	ICSB 718	[(IS 1347 × ICSB 17) × (ICSB 22 × ICSB 45) × (ICSB 52 × ICSB 51)]1
13	ICSB 719	ICSP 1B/R MFR-S 7-191-1-2-1
14	ICSB 720	ICSP 1B/R MFR-S 7-191-1-2-1-1
15	ICSB 721	ICSP 1B/R MFR-S 7-228-1-1-1-1
16	ICSB 722	ICSP 1B/R MFR-S 7-228-1-1-1-2
17	ICSB 723	ICSP 1B/R MFR-S 7-249-1-1
18	ICSB 728	Mali Sor 84-7
19	ICSB 732	(ICSV 197 × ICSP 2B MFR BK)-9-1-1
20	ICSB 737	(SC 108-3 × CSV 4)-51-1

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Sl. No.	Designation	Pedigree
Non-milo (medium-maturity) sorghum B-lines (A₃)		
21	ICSB 740	(ICSB 13 × Mali Sor 84-7)5-1
22	ICSB 741	(ICSB 13 × Mali Sor 84-2)5-6
23	ICSB 742	(ICSB 37 × PM 17500-2-1)3-11-1-2
24	ICSB 743	[(ICSB 101 × TRL 74/C 57) × PM 17467B]2-5-1
25	ICSB 748	(IS 8013 × ICSB 37)13-1-3-2-1
26	ICSB 752	[(IS 1347 × ICSB 17) × (ICSB 22 × ICSB 45) × (ICSB 52 × ICSB 51)]1
27	ICSB 754	ICSV 112-1
28	ICSB 755	[(IS 23493 × ICSV 1) × ICSR 135]-6-3
Non-milo (medium-maturity) sorghum B-lines (A₄)		
29	ICSB 756	(ICSB 6 × IS 18432)13-1-2-2-1
30	ICSB 760	[(ICSB 101 × TRL 74/C 57) × PM 17467B]2-5
31	ICSB 763	(IS 7672 × ICSB 16)1-16-1-1-1-2-1
32	ICSB 767	[(IS 23493 × ICSV 1) × ICSR 135]-6-3
Insect pest-resistant (early-maturity) sorghum B-lines		
1	ICSB 462	[(IS 2195 × ICSB 1B/R-MFR)3-2 × (296 B × (296 B × QL 3))]27-2-1-2-2-5-1-1-1
2	ICSB 474	(IS 18432 × ICSB 6)11-1-1-2-2
3	ICSB 481	(ICSB 101 × ICSV 702)1-1-1-1
4	ICSB 494	[(ICSB 11 × PM 17500-2-1) × PM 17467B]3-2
5	ICSB 497	[(ICSB 11 × PM 17500-2-1) × PM 17467B]4-3
6	ICSB 546	Mali Sor 84-7 (A2 cytoplasm)
7	ICSB 552	(ICSB 13 × Mali Sor 84-7)4-1-2
8	ICSB 559	(ICSB 13 × Mali Sor 84-7)5-6-1
Insect pest-resistant (medium-maturity) sorghum B-lines		
1	ICSB 409	[ICSB 17 × (SPV 462 × (ICSA 101 × ICSV 745))]1-3-2-1-3-1
2	ICSB 410	[{(ICSB 17 × SPV 462) × (ICSA 51 × ICSV 745)} × PS 19349B]8-2-2-2-5-1
3	ICSB 411	(ICSB 36 × ICSV 705)7-2-1
4	ICSB 412	(ICSB 37 × ICSV 705)8-2-1-2
5	ICSB 417	(ICSB 37 × ICSV 705)13-5-2-2
6	ICSB 421	(ICSB 51 × ICSV 705)9-5-1-3-2
7	ICSB 424	[(ICSB 51 × ICSV 705) × PS 19349B]3-1-3-1-1
8	ICSB 426	[(ICSB 51 × ICSV 705) × PS 19349B]10-2-1-1-2
9	ICSB 427	[(ICSB 51 × ICSV 705) × PS 19349B]10-2-1-2
10	ICSB 430	(ICSB 102 × PS 28060-3)4-2-1-1
11	ICSB 436	(MB 10 × ICSV 705)5-2-1
12	ICSB 437	[ICSB 11 × (S 35 × Farafara)]1-1-1-1
13	ICSB 438	(ICSB 37 × ICSV 705)2-2-1
14	ICSB 439	(ICSB 37 × ICSV 705)6-3-2-1
15	ICSB 441	(ICSB 37 × ICSV 705)13-3-1-1
16	ICSB 442	(ICSB 37 × ICSV 705)13-3-2-1
17	ICSB 447	(ICSB 37 × ICSV 705)13-5-2-2-1-3-2
18	ICSB 448	(ICSB 37 × ICSV 705)13-5-2-2-1-3-3
19	ICSB 455	(ICSB 101 × ICSV 705)1-3-3-2
20	ICSB 456	(ICSB 101 × ICSV 705)7-2-3-1
21	ICSB 458	(ICSB 102 × PS 28060-3)4-2-2-1
22	ICSB 459	[296 B × {(296 B × QL 3)-27-2-1-7-2-5 × {ICSB 11 × (S 35 × Farafara)}}]1-1-2-2-1-2
23	ICSB 463	(PS 14454 × SPV 351)1-2-1-1
24	ICSB 466	[{(ICSB 11 × ICSV 700) × PS 19349B} × ICSB 13]2-1-1
25	ICSB 473	(ICSB 102 × ICSV 700)5-2-4-1-2
26	ICSB 476	[(ICSB 37 × ICSV 702) × PS 19349B]2-2-1-1-1
27	ICSB 480	[(ICSB 70 × ICSV 700) × PS 19349B]5-4-1-4-2
28	ICSB 482	(ICSB 101 × ICSV 702)1-3-5-1-2
29	ICSB 487	(ICSB 102 × ICSV 700)5-2-4-2-1-2

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Sl. No.	Designation	Pedigree
30	ICSB 489	(ICSB 11 × PM 17467B)3-1-2-1-2
31	ICSB 492	[(ICSB 11 × PM 17500-2-1) × PM 17467B]1-1-2
32	ICSB 493	[(ICSB 11 × PM 17500-2-1) × PM 17467B]3
33	ICSB 495	[(ICSB 11 × PM 17500-2-1) × PM 17467B]3-2-2
34	ICSB 506	(ICSB 26 × PM 17467B)1-1-2-1
35	ICSB 509	[(ICSB 26 × PM 17467B) × PM 17467B]4-2-1
36	ICSB 511	[(ICSB 26 × PM 17467B) × PM 17467B]10-1-2
37	ICSB 513	[(ICSB 26 × PM 17467B) × PM 17467B]10-3-1-1
38	ICSB 517	[(ICSB 26 × PM 17467B) × PM 7061B]2-1-1-1
39	ICSB 519	[(ICSB 26 × PM 17500-2-1) × PM 17467B]1-2
40	ICSB 521	(ICSB 37 × PM 17467B)2-1-2
41	ICSB 522	(ICSB 37 × PM 17467B)3-1-1-2
42	ICSB 523	[(ICSB 37 × PM 17500-2-1) × PM 17682B]1-1
43	ICSB 524	[(ICSB 37 × PM 17500-2-1) × PM 17682B]6-1-2
44	ICSB 525	(ICSB 51 × PM 17467B)15-1
45	ICSB 527	(ICSB 70 × PM 17467B)9-1-1-1-1-1
46	ICSB 528	(ICSB 70 × PM 17467B)9-1-1-1-1-2
47	ICSB 533	(ICSB 70 × PM 17467B)14-2-1
48	ICSB 534	[(ICSB 70 × PM 17467B) × PM 17682B]3-2-1-1
49	ICSB 536	(ICSB 70 × PM 17500-2-1)6-2-1
50	ICSB 542	ICSP-1B/R-MFR-57-191-1-2-1-1
51	ICSB 543	ICSP-1B/R-MFR-57-197-1
52	ICSB 545	ICSP-1B/R-MFR-57-228-1-1-2
53	ICSB 549	(ICSB 13 × Mali Sor 84-2)5-2-3
54	ICSB 550	(ICSB 13 × Mali Sor 84-7)1-2-1
55	ICSB 553	(ICSB 13 × Mali Sor 84-7)4-3
56	ICSB 563	(ICSB 38 × Mali Sor 84-7)4-3
57	ICSB 565	(ICSB 38 × Mali Sor 84-7)4-3-2

Insect pest-resistant (late-maturity) sorghum B-lines

1	ICSB 428	(ICSB 101 × ICSV 705)1-3-2-1
2	ICSB 433	(PS 21303 × SPV 386)1-3-2-1-1
3	ICSB 434	(PS 21303 × SPV 386)1-3-2-1-2
4	ICSB 443	(ICSB 37 × ICSV 705)13-3-2-2
5	ICSB 453	[(ICSB 51 × ICSV 705) × PS 19349B]6-3-1
6	ICSB 468	[(ICSB 26 × ICSV 700) × PS 19349B) × ICSB 3]1-1-3-1
7	ICSB 526	(ICSB 70 × PM 17467B)2-1-2-1-2
8	ICSB 530	(ICSB 70 × PM 17467B)9-1-1-1-2-2
9	ICSB 538	[(ICSB 70 × PM 17500-2-1) × PM 17682B]1

High-yielding (early-maturity) sorghum R-lines

1	ICSR 32	(SC 108-3 × CSV 4)-29-1-1
2	ICSR 45	[(148 × E 35-1) × 148]-3-1-3
3	ICSR 46	(IS 12611 × SC 108-3)-1-1-3
4	ICSR 54	[(Lulu 5 × 36D) × (146 × UChV2)]-2-5
5	ICSR 55	(SC 108-3 × CSV 4)-14-1
6	ICSR 59	(146 × CSV 4)-18-7-3
7	ICSR 60	(Swarna × CS 3687)-6-1-3
8	ICSR 61	(SC 108-4-8 × CSV 4)-60-1-1
9	ICSR 64	(SC 108-4-8 × CSV 4)-10-1-1-2
10	ICSR 69	(UChV2 × E 35-1)-11-1
11	ICSR 79	[(SC 108-3 × Swarna) × CSV 4]-15-1
12	ICSR 80	[(SC 108-3 × Swarna) × CSV 4]-37-1
13	ICSR 81	[(2219B × Swarna) × CSV 4]-11-1-1
14	ICSR 88	[SC 170 × (SC 108-3 × 148)]-1-2-1

contd.

Sl. No.	Designation	Pedigree
15	ICSR 94	[(CSV 4 × 4-26) × (SC 108-3 × 148)-12-10
16	ICSR 97	[(IS 12645 × CSV 4) × IS 9327deri]
17	ICSR 105	{MR 840 × [(2077B × 9327) × R 2797]}-15-2-2-2
18	ICSR 113	{[Safra × (SC 108-3 × E 35-1)-5-1] × CSV 4}-3-4-2
19	ICSR 121	{[IS 19614 × (148 × E 35-1)] × CSV 4}-5-3-4-5-6-2
20	ICSR 124	{[(Bulk Y × CSV 4) × IS 9327-25] × (MB 7 × R 2796)}-5
21	ICSR 137	[MR 836 × (CK 60B × IS 84)]-6-4-3
22	ICSR 138	[(148 × E 35-1)-4-2-4 × IS 17797]-3-4-3
23	ICSR 142	(FLR 101 × CSV 4)-1-2-1
24	ICSR 148	Ind.Syn 458-1
25	ICSR 151	(SC 108-3 × Diallel)-2-1-2-3-3
26	ICSR 89007	[(C 89 × SPV 351) × MR 934]-13-1-1
27	ICSR 89029	[(C 85-1 × SPV 475) × ICSB 12]-1
28	ICSR 89033	[(C 138 × SPV 475) × SPL 7R]-5-3-2
29	ICSR 89035	[C 58 × (SC 108-3 × CSV 4)-3-1]-5-2
30	ICSR 89036	[C 101 × (SC 108-3 × CSV 4)-3-1]-16-2
31	ICSR 89038	[(IS 3982 × SPV 351) × MR 942]-3-2
32	ICSR 89039	[(IS 931 × SPV 351) × MR 923]-2-2
33	ICSR 89044	[(IS 10450 × SPV 475) × MR 909]-6-3
34	ICSR 89050	(PM 6751 × ICSV 162)-9-1-2-1
35	ICSR 89066	(PS 21194 × SPV 350)-3-1-2-3-3
36	ICSR 89067	(PM 6751 × ICSV 189)-11-2-1-1-1
37	ICSR 89074	(20/75)-1-1-5-1
38	ICSR 90014	(PM 14403-1 × MR 855)-5-3-1-1
39	ICSR 90015	(PM 14415-1-1 × A 3201)-19-1-1
40	ICSR 90025	(PS 14413 × ICSV 112)-1-1-2-1
41	ICSR 91001	(IS 19474 × ICSP 1R MFR BK)-5-2-3-2
42	ICSR 91002	[(IS12573C × SC108-3)-16-2-1 × (ICSP 2B MFR BK)]-1-6
43	ICSR 91003	(IS 18551 × ICSP 1R MFR BK)-6-2
44	ICSR 91004	[(IS12573C × SC108-3)-16-2-1 × (ICSP 1R MFR BK)]-4-9
45	ICSR 91021	[(DKV 3 × (ICSV 197 × DKV 3)]-2-5
46	ICSR 91022	(GPR 148 × 555)-Bulk-1-1-1
47	ICSR 91029	((((IS 3443 × DJ 6514)-1-1-1-1-1) × (SC 108-3 × CS 3541)-19-1)-1-1-1-4
48	ICSR 92015	IS 3147
High-yielding (medium-maturity) sorghum R-lines		
1	ICSR 8	[SC 170 × (SC 108-3 × 148)]-1-2-3-5
2	ICSR 21	[(SPV 35 × E 35-1)CSV 4]-16
3	ICSR 22	{[(SC 108-3 × CSV 4) × SC 110] × (SC 108-3 × 148)}-12-5
4	ICSR 25	[ET 2039 deri × (SC 108-3 × 148)]
5	ICSR 27	(IS 12645C × CSV 4)-6-1-4
6	ICSR 47	(IS 12611 × SC 108-3)-1-2
7	ICSR 48	(IS 12611 × SC 108-3)-4-2-4-1
8	ICSR 50	(IS 12611 × SC 108-3)-4-2-4-3
9	ICSR 58	(SC 108-3 × 148)-18-4-1
10	ICSR 74	[(Bulk Y × 168) × CSV 4]-35-1
11	ICSR 75	(IS 9530 × E 35-1)-2-3-1-1
12	ICSR 78	[(SC 108-3 × Swarna) × CSV 4]-12-1
13	ICSR 83	[(2219B × Swarna) × CSV 4]-3-2-1
14	ICSR 84	[(Bulk Y × 165) × CSV 4]-30-1
15	ICSR 91	[(SC 108-3 × 148) × (SC 423 × CSV 4)]-68-5
16	ICSR 92	(IS 9530 × E 35-1)-2-3-1-2-1
17	ICSR 93	(SC 108-3 × 148)-8-2-1-1
18	ICSR 98	[(SC 108-3 × CSV 4) × 1807B]-3-4-4-4

contd.

Sl. No.	Designation	Pedigree
19	ICSR 100	[(IS 12611 × SC 170) × MR 841]-4-1-1-3
20	ICSR 102	[(148 × E 35-1)-4-1 × CSV 4]-1-1-1
21	ICSR 115	(IS 20509 × SPV 471)-4-2
22	ICSR 117	(E 36-1 × CSV 4)-5-19-2-2
23	ICSR 118	[SPV 475 × (IS 12611 × SC 108-3)]-4-8-4-1
24	ICSR 119	[SPV 475 × (IS 12611 × SC 108-3)]-4-8-4-2
25	ICSR 123	(SPV 351 × 77CS 771)-1-4
26	ICSR 127	{MR 840 × [(2077B × IS 9327) × R 2797]}-15-3-4
27	ICSR 129	[(148 × E 35-1) × IS 9327 (MB 4 × R 2757)]-4-4
28	ICSR 131	{PR 82A-137 × [(SPV 35 × E 35-1) × CSV 4]}-16-3-12
29	ICSR 133	{IS 19614 × [(148 × E 35-1) × CSV 4]}-5-3-4-4
30	ICSR 136	(SPV 475 × IN 15-2)-5-2
31	ICSR 141	(FLR 101 × IS 1082)-4-5-2
32	ICSR 145	(CSV 4 × GG × 370)-1
33	ICSR 146	(CSV 4 × GG × 370)-2-1-1-6-2
34	ICSR 147	Ind.Syn 182-2-4-3-2
35	ICSR 154	(IS 3443 × DJ 6514)-1-1-1-1-1
36	ICSR 155	(PM 11344 × SPV 351)-17-1-1-1
37	ICSR 160	[(IS 12622C × 555) × (IS 3612C × 2219B)-5-1 × E 35-1]
38	ICSR 166	{F5 s × [18-83 × (SC 423 × CSV 4)-47]}-2-1-2-1
39	ICSR 171	(D 93070 × F5 s)-1-1-1-1-1-4
40	ICSR 179	[(VZM 1B × SPV 104)-13 × (DH 524 × IS 2328)]-4-2
41	ICSR 181	[(3-60 × SPV 105) × Swarna-3-1]-1-1-1-1
42	ICSR 186	[(E 35-1 × 13-35) × (SC 108-3 × CSV 4) × E 12-5]-1-1
43	ICSR 89003	[(C 138 × SPV 475) × SPL 7R]-5-1-1
44	ICSR 89011	(C 101 × SPV 351)-14-2-2
45	ICSR 89021	[(C 138 × SPV 475) × SPL 7R]-5-1-2
46	ICSR 89023	[(C 138 × SPV 475) × SPL 7R]-5-3-2
47	ICSR 89046	(PM 11344 × SPV 351)-1-1-1-3
48	ICSR 89047	(PM 11344 × SPV 351)-6-8-1-1
49	ICSR 89048	(PM 6751 × ICSV 102)-12-2-3-1
50	ICSR 89049	(PM 6751 × ICSV 162)-2-1-1-1
51	ICSR 89051	(PM 7322 × ICSV 166)-18-1-3-1
52	ICSR 89054	(PM 7526 × R 3069)-1-4-1-1
53	ICSR 89057	(PM 11344 × R 2961)-3-11-2-1
54	ICSR 89061	(PS 21303 × SPV 386)-1-3-2-2-1
55	ICSR 89069	(PM 7032 × ICSB 3)-4-2-1-1
56	ICSR 89073	(PS 19881-1 × SPV 394)-1-1-1-1
57	ICSR 90001	[(C 138 × ICSV 112) × SPL 7R]-4-2
58	ICSR 90005	[(C 138 × ICSV 112) × SPL 7R]-5-3-1
59	ICSR 90008	(PS 14413 × ICSV 112)-1-5-2-1-4
60	ICSR 90009	(PM 6751 × SPV 615)-7-2-1-2-3
61	ICSR 90010	(PM 6751 × ICSV 102)-2-1-1-1-1
62	ICSR 90011	(PM 6751 × ICSV 102)-2-1-1-1-2
63	ICSR 90012	(ICSV 197 × R 2961)-3-11-2-1-1
64	ICSR 90016	(PM 14403-1 × MR 855)-10-1-1-1
65	ICSR 90020	(PS 14413 × ICSV 112)-2-2-2-1
66	ICSR 90021	(PS 21310 × A 7045)-5-3-6-1-2
67	ICSR 90022	(PS 14413 × ICSV 112)-3-1-1-1
68	ICSR 90023	(PS 19881-1 × SPV 394)-1-1-1-1
69	ICSR 90024	(PS 19881-1 × SPV 394)-1-1-1-2
70	ICSR 90026	(PS 19881 × R 11941)-11-1-3-1-1
71	ICSR 90028	(PS 21303 × SPV 386)-1-3-2-2-1
72	ICSR 91005	(IS 12664C × ICSP 1R MFR BK)-1-1-2-2

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Sl. No.	Designation	Pedigree
73	ICSR 91007	[(SPV 475 × (ICSV 197 × SPV 475)]-2-3-1-1-3
74	ICSR 91008	(IS 12664C × ICSP 1R MFR BK)-8-2-1
75	ICSR 91009	(IS 12664C × ICSP 1R MFR BK)-8-2-3
76	ICSR 91010	[(20-67 × SB 1067)-4-1 × (SPV 475)]-1
77	ICSR 91013	[(DKV 3 × (ICSV 197 × DKV 3)]-2-5
78	ICSR 91018	[(SPV 105 × ICSV 1)-1-1-4 × PB 10858]-5-1
79	ICSR 91019	[(M 35-1 × M 1009)-2-1 × F5-6)-5-3-2 × SPV475]-3-2
80	ICSR 91020	(SPV 475 × DKV 74)-1
81	ICSR 91023	((RS/R × EN 3257-4)-1-5-1-1-6-1-1-1 × (SC 108-3 × CS 3541)-19-1)-3-1-2-3-3
82	ICSR 91025	((Bulk Y × CS 3541)-25-1-1-3B × (IS 1054 × Late POP Bulk)-2-2-1-1-6-1-1)-17-2-2-1-1
83	ICSR 91026	((((IS 3443 × DJ 6514)-1-1-1-1-1) × (E 35-1 × Rs/B 394)-1-1-2)-1-1-2-3-2
84	ICSR 91028	((((IS 3443 × DJ 6514)-1-1-1-1-1) × (E 35-1 × US/B 487)-2-1-4-1-1-3)-8-2-1-4-3
85	ICSR 91030	((((IS 3443 × DJ 6514)-1-1-1-1-1) × (SC 108-3 × CS 3541)-19-1)-17-3-1-1
86	ICSR 91031	(SC 108-4-8 × CS 3541)-88
87	ICSR 91032	(IS 1082 × SC 108-3)-1-1-1-1-1
88	ICSR 91033	Mali-sor-84-7
89	ICSR 92005	[(ICSV 234 × IS 20509) × (IS12611 × SC108-3)]-1-2
90	ICSR 92007	[E×P 32/1 × ((IS 10927 × UChV2) × CSV 4)-5]-3-5
91	ICSR 92008	(PM 6751 × ICSV 102)-2-1-1-1-3-2
92	ICSR 92009	(PM 7322 × ICSV 166)-18-1-3-1-2-2
93	ICSR 92010	[(SPV 475 × ICSV 197) × SPV 475]-10-4
94	ICSR 92011	(ICSV 197 × ICSP 2B MFR BK)-9-1-1
95	ICSR 92012	[(IS 23493 × SPV 351) × (MR 940)]-8-1
96	ICSR 92014	IS 271
97	ICSR 92016	SSV 108-1
98	ICSR 92022	(S 53-1 × ICSP 2B/R MFR S2S BULK)-4
99	ICSR 92023	(S 53-1 × ICSP 2B/R MFR S2S BULK)-7
100	ICSR 92026	GSS 196
101	ICSR 92027	(PB 10858 × DKV 1)-2

High-yielding (late-maturity) sorghum R-lines

1	ICSR 5	[(SC 108-3 × Swarna) × E 35-1]-8-2-1-3
2	ICSR 14	(IS 12611 × SC 108-3)-4-5
3	ICSR 44	[ET 2039deri × (SC 108-3 × 148)]-29-3-1
4	ICSR 82	[(2219B × Swarna) × CSV 4]-11-1-2
5	ICSR 99	{[(Swarna × CS 3687) × SC 170] × MR 841}-4-4
6	ICSR 132	(E 12-5 × 2077B)-1-2-3-2
7	ICSR 135	[(IS 12611 × SPV 104) × IS 12611]-11-1
8	ICSR 156	(PS 21221 × ISPYT 2/E#20)-6-3-4-6
9	ICSR 185	{2077B × [(Bulk Y × D 181) × SPV 104]}-4-1-1-2
10	ICSR 89002	[(C 85-1 × SPV 475) × ICSB 12]-1
11	ICSR 89026	[(C 85-2 × SPV 351) × MR 929]-1-3
12	ICSR 89055	(PM 11344 × R 2961)-1-1-7-1
13	ICSR 89056	(PM 11344 × R 2961)-2-4-2-1
14	ICSR 89060	(PS 21310 × A 7045)-5-3-6-1-1-2
15	ICSR 89062	(PS 21314 × D 71383)-4-2-2-3-1-3
16	ICSR 89070	(PS 14454 × ICSV 1)-1-2-1-1-1
17	ICSR 90002	[(C 85-2 × ICSV 1) × MR 929]-1-3
18	ICSR 90013	(PM 14403-1 × SPV 422)-20-2-1-1
19	ICSR 90018	(CSV 4 × IS 2312)-5-1-1-5-1
20	ICSR 90019	(PS 19230 × ICSV 1)-9-1-2-2
21	ICSR 90027	(PS 14413 × ICSV 112)-1-5-2-1-3
22	ICSR 92001	[(IS 2350 × MB 9) × SPV 351]-6-1-1-5

¹D = distinctiveness; U = uniformity; S = stability.

Table 3. Maturity-wise grouping of designated 334 trait-specific sorghum A-/B-lines characterized for the traits stipulated in the DUS-test guidelines (ICRISAT, Patancheru, India, 2005 rainy and postrainy seasons).

Trait	Maturity group			Total no. of entries
	Early	Medium	Late	
High yielding (A_1)	20	50	–	70
Disease resistant (A_1)	14	83	24	121
Insect pest resistant (A_1)	8	57	9	74
Stress tolerant (A_1)	11	26	–	37
Non- <i>milo</i> (A_2)	–	20	–	20
Non- <i>milo</i> (A_3)	–	8	–	8
Non- <i>milo</i> (A_4)	–	4	–	4
Total	53	248	33	334

Table 4. Maturity-wise grouping of 171 designated sorghum R-lines (on A_1 CMS system) characterized for the traits stipulated in the DUS-test guidelines (ICRISAT, Patancheru, India, 2005 rainy and postrainy seasons).

Maturity group	Number of entries
Early	48
Medium	101
Late	22
Total	171

Table 5. Procedures for recording data on additional traits (ancillary) other than those stipulated in the DUS-test guidelines for sorghum.

Trait	Procedure
Days to seedling emergence	Number of days required for 50% of the seeds to germinate.
Seedling vigor	Scored visually on a 1 to 5 scale (1 = most vigorous and 5 = least vigorous) at 7 days after emergence (DAE). Plant height, pseudo stem thickness, spread of leaf canopy and/or the length and breadth of the leaves.
Leaf glossiness	Scored on a 1 to 5 scale, where 1 = glossy and 5 = non-glossy at 10 DAE.
Plant agronomic aspect	Scored on a 1 to 5 scale (1 = very good, 2 = good, 3 = average, 4 = below average, and 5 = poor). Plant height, plant color, panicle shape and size, and grain color and size were considered while scoring.
Panicle yield ($t\ ha^{-1}$)	Panicles from 20 representative plants in each line were weighed and used to estimate panicle yield in $t\ ha^{-1}$.
Grain yield ($t\ ha^{-1}$)	Threshed grain from 20 representative panicles in each entry were weighed and used to estimate grain yield in $t\ ha^{-1}$.
Selfed seed set (%) in A-lines under high atmospheric temperature ($>42^\circ C$)	Seed set in five randomly selfed plants in each of the A-lines was recorded at maturity. Any A-line with more than 5% seed set was considered unstable for male-sterility.

Annexure I. List of tables with characterization data on ICRISAT-bred trait-specific *nilo* and non-*nilo* sorghum A-/B-lines and R-lines.

No.	Title
I - 1	Characteristics of high-yielding (early-maturity) sorghum B-lines evaluated during the rainy and postrainy seasons, 2005 at ICRISAT-Patancheru.
I - 2	Characteristics of high-yielding (medium-maturity) sorghum B-lines evaluated during the rainy and postrainy seasons, 2005 at ICRISAT-Patancheru.
I - 3	Characteristics of disease-resistant (early-maturity) sorghum B-lines evaluated during the rainy and postrainy seasons, 2005 at ICRISAT-Patancheru.
I - 4	Characteristics of disease-resistant (medium-maturity) sorghum B-lines evaluated during the rainy and postrainy seasons, 2005 at ICRISAT-Patancheru, India.
I - 5	Characteristics of disease-resistant (late-maturity) sorghum B-lines evaluated during the rainy and postrainy seasons, 2005 at ICRISAT-Patancheru.
I - 6	Characteristics of stress tolerant (early maturity) sorghum B-lines evaluated during the rainy and postrainy seasons, 2005 at ICRISAT-Patancheru.
I - 7	Characteristics of stress tolerant (medium maturity) sorghum B-lines evaluated during the rainy and postrainy seasons, 2005 at ICRISAT-Patancheru.
I - 8	Characteristics of non- <i>nilo</i> (medium-maturity) sorghum B-lines evaluated during the rainy and postrainy seasons, 2005 at ICRISAT-Patancheru.
I - 9	Characteristics of insect pest-resistant (early-maturity) sorghum B-lines evaluated during the rainy and postrainy seasons, 2005 at ICRISAT-Patancheru.
I - 10	Characteristics of insect pest-resistant (medium-maturity) sorghum B-lines evaluated during the rainy and postrainy seasons, 2005 at ICRISAT-Patancheru.
I - 11	Characteristics of insect pest-resistant (late-maturity) sorghum B-lines evaluated during the rainy and postrainy seasons, 2005 at ICRISAT-Patancheru.
I - 12	Characteristics of high-yielding (early-maturity) sorghum R-lines evaluated during the rainy and postrainy seasons, 2005 at ICRISAT-Patancheru.
I - 13	Characteristics of high-yielding (medium-maturity) sorghum R-lines evaluated during the rainy and postrainy seasons, 2005 at ICRISAT-Patancheru.
I - 14	Characteristics of high-yielding (late-maturity) sorghum R-lines evaluated during the rainy and postrainy seasons, 2005 at ICRISAT-Patancheru.

Annexure I-1. Characteristics of high yielding (early maturity) sorghum B-lines evaluated during the rainy and post-rainy seasons, 2005 at ICRISAT-Patancheru.

Serial number	ICSB number	Trait number →	1		2		3		4		5		6		7		8		9		10	
			Trait		Fifth leaf sheath color		Leaf midrib color		Days to 50% flowering		Plant height (m) at flowering		Flag leaf: Extension of midrib		Flag leaf: intensity of green coloration of midrib compared to the blade		Flag leaf: yellow coloration of midrib		Glume hair color		Lemmas: arista formation	
			Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy
1	7	High yield	1	1	1	1	2	2	64	83	0.7	0.6	1	1	2	2	1	1	1	1	1	1
2	10	High yield	1	1	1	1	2	2	65	80	0.8	0.6	1	1	2	2	1	1	1	1	1	1
3	25	High yield	2	2	3	3	2	2	61	74	1.2	0.8	1	1	2	2	1	1	1	1	1	1
4	36	High yield	1	1	1	1	2	2	64	84	0.8	0.6	1	1	2	2	1	1	1	1	1	1
5	57	High yield	2	2	3	3	2	2	66	83	0.8	0.6	5	5	2	2	1	1	1	1	1	3
6	615	Early	1	1	1	1	2	2	64	81	0.7	0.6	5	5	2	2	1	1	1	1	5	3
7	619	Early	1	1	1	1	2	2	62	77	0.9	0.8	5	5	2	2	1	1	1	1	5	5
8	622	Early	2	2	3	3	2	2	63	79	0.8	0.6	1	1	2	2	1	1	1	1	1	1
9	623	Early	1	1	1	1	2	2	67	77	0.8	0.6	1	1	2	2	1	1	1	1	1	1
10	625	Early	1	1	1	1	2	2	64	74	1.2	0.9	1	7	2	2	1	1	1	1	1	1
11	628	Early	1	1	1	1	2	2	59	73	1.0	0.7	1	1	2	2	1	1	1	1	1	1
12	630	Early	1	1	1	1	2	2	64	80	0.6	0.6	1	1	2	2	1	1	1	1	3	3
13	634	Early	1	1	3	1	2	2	63	70	0.9	0.7	1	1	2	2	1	1	1	1	1	1
14	635	Early	2	2	3	3	2	2	65	76	1.0	0.8	1	1	2	2	1	1	1	1	1	1
15	636	Early	1	1	1	1	2	2	63	73	1.1	0.8	1	1	2	2	1	1	1	1	1	1
16	644	Durra	2	2	3	3	2	2	70	81	1.2	0.8	1	1	2	2	1	1	1	1	1	1
17	647	Durra	2	2	3	3	2	2	68	78	1.2	0.8	1	1	2	2	1	1	1	1	1	1
18	88003	High yield	2	2	3	3	2	2	64	85	1.1	0.8	1	1	2	2	1	1	1	1	1	1
19	88019	High yield	1	1	3	1	2	2	65	95	1.2	1.1	1	1	2	2	1	1	1	1	1	1
20	88020	High yield	1	1	1	1	2	2	65	92	1.2	1.2	1	1	2	2	1	1	1	1	1	1
Control																						
21	296B	High yield	2	2	1	1	2	2	77	95	1.1	0.8	1	1	2	2	1	1	1	1	5	5
Mean			-	-	-	-	-	-	65	81	0.99	0.75	-	-	-	-	-	-	-	-	-	-
SE ±			-	-	-	-	-	-	0.76	1.61	0.03	0.03	-	-	-	-	-	-	-	-	-	-
CV (%)			-	-	-	-	-	-	2.02	3.45	4.73	6.01	-	-	-	-	-	-	-	-	-	-
CD (5%)			-	-	-	-	-	-	2.18	3.61	0.08	0.08	-	-	-	-	-	-	-	-	-	-

Early- Early maturity; Durra- Durra large grain.

Trait No. 1-41 : Traits stipulated in the DUS-test guidelines (Trait no 38 was not recorded in the current trials).

Trait No. 42-48 : Ancillary traits recorded in the current trials.

Trait No. 49-52 : Monitored traits recorded in various trials conducted earlier at ICRISAT.

Serial number	ICSB number	Trait number →	11		12		13		14		15		16		17		18		19		20		21	
			Stigma: anthocyanin coloration		Stigma: yellow coloration		Stigma length		Pedicellate flower length		Length of anther		Dried anther color		Glume color		Plant height (m) at maturity		Stem thickness (mm)		Juicy score		Brisk reading (%)	
			Rainy	Post rainy	Rainy	Post rainy	Rainy	Post rainy	Rainy	Post rainy	Rainy	Post rainy	Rainy	Post rainy	Rainy	Post rainy	Rainy	Post rainy	Rainy	Post rainy	Rainy	Post rainy	Rainy	Post rainy
1	7	High yield	1	1	5	1	3	3	5	3	5	5	7	4	4	5	1.0	0.9	19.2	17.1	1	1	11.7	8.3
2	10	High yield	1	1	7	1	3	3	5	5	5	5	6	4	4	5	1.1	0.9	17.8	17.5	1	1	9.9	7.4
3	25	High yield	1	1	5	1	3	5	5	5	5	5	7	6	5	5	1.5	1.0	16.0	13.0	1	1	11.1	12.6
4	36	High yield	1	1	5	1	3	3	5	5	5	5	7	4	2	2	1.2	1.0	16.7	15.5	1	1	10.2	12.1
5	57	High yield	1	1	1	1	9	5	5	5	3	5	7	6	1	2	1.1	0.9	20.1	14.0	1	1	8.3	7.9
6	615	Early	1	1	5	1	5	5	5	5	5	5	7	4	2	2	1.2	0.9	15.5	16.2	1	1	9.6	11.1
7	619	Early	1	1	5	5	5	5	3	5	5	7	4	4	2	5	1.4	1.1	17.9	12.8	1	1	6.1	9.2
8	622	Early	1	1	7	7	3	5	5	5	5	7	7	4	2	2	1.1	0.9	16.3	16.5	1	1	10.9	10.9
9	623	Early	1	1	5	1	3	3	3	5	3	3	4	4	4	2	1.0	0.8	15.1	11.7	1	1	18.4	12.0
10	625	Early	1	1	1	1	5	5	5	5	5	5	6	4	5	5	1.6	1.3	15.8	9.9	1	1	10.7	9.8
11	628	Early	1	1	5	1	3	5	5	5	5	5	7	4	5	5	1.5	1.1	14.2	11.7	1	1	9.6	9.4
12	630	Early	1	1	5	1	5	5	5	5	5	5	4	4	1	1	0.9	0.7	15.2	13.9	1	1	9.3	11.0
13	634	Early	1	1	5	5	3	5	5	7	5	5	7	7	3	7	1.3	1.1	16.2	12.7	1	1	6.8	14.1
14	635	Early	1	1	7	5	5	3	3	5	5	5	7	7	5	5	1.4	1.1	15.7	15.5	1	1	11.0	12.9
15	636	Early	1	1	5	5	3	3	5	5	5	5	7	7	3	7	1.4	1.1	15.3	12.6	1	1	6.7	9.9
16	644	Dura	1	1	5	5	5	5	5	5	5	5	6	4	1	1	1.5	1.0	17.5	13.8	2	1	6.4	12.6
17	647	Dura	1	1	5	5	5	9	5	5	5	5	7	4	2	2	1.4	1.1	17.8	12.6	1	1	8.4	14.6
18	88003	High yield	1	1	5	5	3	3	5	5	7	7	4	4	2	2	1.4	1.0	15.8	11.5	1	1	4.8	10.3
19	88019	High yield	1	1	1	1	3	3	3	3	3	3	4	6	4	1	1.4	1.3	13.2	12.6	1	1	11.7	15.0
20	88020	High yield	1	1	1	1	3	5	3	3	3	3	7	4	4	5	1.5	1.4	12.0	12.5	1	1	8.9	16.0
Control																								
21	296B		1	1	1	1	5	5	5	5	3	5	6	4	1	1	1.3	1.1	21.6	15.1	2	1	6.1	14.2
Mean			-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.34	1.05	16.69	13.83	-	-	9.54	11.63
SE _±			-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	0.03	0.92	1.22	-	-	1.83	1.63
CV (%)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.81	5.73	9.57	15.32	-	-	33.32	24.27
CD (5%)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.08	0.09	2.63	3.92	-	-	5.23	4.97

Serial number	ICSB number	Trait number →		22		23		24		25		26		27		28		29		30		31		32	
		Trait		Leaf length (cm)		Leaf width (cm)		Panicle length (cm)		Panicle branch length (cm)		Panicle compactness		Panicle shape		Panicle exertion (cm)		Glume coverage (%)		Shattering		Threshability%		Grain form	
		Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
1	7	High yield	54.2	54.1	7.9	6.7	28.7	22.7	8.1	6.3	5	5	3	3	3	5.0	11.0	41.7	33.3	1	1	1	1	1	1
2	10	High yield	58.0	51.2	7.1	6.4	28.9	23.0	9.1	6.2	5	5	3	3	3	6.7	7.8	41.7	25.0	1	1	1	1	1	1
3	25	High yield	67.6	55.2	8.7	6.7	25.0	17.7	7.1	4.3	5	5	3	3	3	8.7	8.8	33.3	33.3	1	1	1	1	1	1
4	36	High yield	63.3	56.9	7.4	6.9	27.6	23.3	7.6	6.8	5	5	3	3	3	10.6	12.6	25.0	25.0	1	1	1	1	1	1
5	57	High yield	70.6	59.4	8.7	6.3	28.0	20.7	9.7	5.8	7	7	3	3	3	8.1	13.0	50.0	33.3	1	1	1	1	1	1
6	61S	Early	67.8	66.7	7.2	6.5	24.7	20.2	6.4	6.1	7	7	3	3	3	21.1	10.0	41.7	33.3	1	1	1	1	1	1
7	619	Early	67.3	57.8	7.7	6.8	33.9	26.0	8.7	7.2	5	5	3	3	3	11.0	14.1	41.7	25.0	1	1	1	1	1	1
8	622	Early	63.9	56.0	6.7	6.3	22.7	19.0	7.3	5.4	7	7	3	3	3	6.4	12.1	25.0	25.0	1	1	1	1	1	1
9	623	Early	72.7	54.7	7.0	5.1	21.0	15.6	4.9	3.9	7	7	3	3	3	2.9	8.0	41.7	33.3	1	1	1	1	1	1
10	625	Early	70.4	54.3	8.1	6.8	28.2	20.6	7.3	4.4	7	7	3	3	3	12.1	23.6	41.7	25.0	1	1	1	1	1	1
11	628	Early	56.2	45.9	6.9	4.8	31.9	23.7	10.5	8.1	3	5	3	3	3	12.1	18.6	41.7	25.0	1	1	1	1	1	1
12	630	Early	69.0	59.8	7.2	6.4	24.3	20.3	8.4	5.8	5	5	3	3	3	4.3	3.8	50.0	50.0	1	1	1	1	1	1
13	634	Early	61.4	52.8	6.9	6.0	24.6	21.1	9.1	4.9	3	5	3	3	3	17.4	20.9	58.3	75.0	1	1	1	1	1	1
14	635	Early	63.4	59.3	8.1	8.1	24.6	20.3	6.3	5.2	7	7	3	3	3	13.6	15.3	41.7	33.3	1	1	1	1	1	1
15	636	Early	66.7	58.9	7.6	6.7	23.1	19.7	6.4	4.3	5	7	3	3	3	11.0	15.3	50.0	50.0	1	1	1	1	1	1
16	644	Dura	60.9	63.8	7.3	6.2	22.0	19.9	5.0	4.3	7	7	3	3	3	6.2	9.7	41.7	25.0	1	1	1	1	1	1
17	647	Dura	59.7	63.4	6.9	5.9	23.4	18.9	5.8	5.3	7	7	3	3	3	3.7	11.2	41.7	25.0	1	1	1	1	1	1
18	88003	High yield	70.7	52.2	8.3	6.3	30.6	23.1	9.8	6.6	5	5	3	3	3	4.1	7.2	33.3	50.0	1	1	1	1	1	1
19	88019	High yield	64.3	60.3	8.9	7.2	21.0	19.0	5.3	4.6	7	7	3	3	3	4.7	6.1	33.3	25.0	1	1	1	1	1	1
20	88020	High yield	57.4	53.2	8.7	6.9	20.2	21.6	5.3	5.0	7	7	3	3	3	7.7	5.8	25.0	25.0	1	1	1	1	1	1
Control																									
21	296B		67.8	57.2	8.8	5.8	32.8	24.1	7.6	6.2	7	7	3	3	3	0.4	7.6	25.0	25.0	1	1	1	1	1	1
Mean			64.98	56.63	7.82	6.47	26.31	21.18	7.49	5.59	-	-	-	-	-	8.34	11.49	38.04	32.61	1	1	1	1	1	1
SE ±			2.93	2.36	0.46	0.36	0.89	1.25	0.48	0.61	-	-	-	-	-	1.43	2.22	6.03	4.21	-	-	-	-	-	-
CV (%)			7.82	7.23	10.17	9.73	5.87	10.21	10.99	18.94	-	-	-	-	-	29.74	33.49	27.46	22.35	-	-	-	-	-	-
CD (5%)			8.36	7.67	1.31	1.20	2.54	3.08	1.35	1.53	-	-	-	-	-	4.08	5.43	17.19	14.88	-	-	-	-	-	-

Serial number	ICSB number	Trait number →	33	34	35	36	37	39	40	41	42	43		44		45		46		47	
												Leaf glossy score		Seedling vigor score		Plant aspect score		Panicle yield (t ha ⁻¹)		Grain yield (t ha ⁻¹)	
		Trait	Grain color	1000-grain mass (g)	Grain shape- dorsal view	Grain shape- profile view	Grain germ size	Endosperm texture	Albumen color	Grain lustre	Days to seedling emergence	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
1	7	High yield	1	31.00	3	3	5	5	3	7	5	2.7	2.7	3.0	3.0	2.3	1.7	3.1	3.0	2.3	2.5
2	10	High yield	1	31.50	3	3	5	3	3	7	5	3.0	3.0	3.7	5.0	2.7	2.0	3.0	3.3	3.0	2.4
3	25	High yield	1	29.93	3	3	5	3	3	7	4	2.7	2.7	2.3	2.3	2.7	2.7	2.7	2.9	2.2	2.3
4	36	High yield	8	25.56	3	3	5	3	3	5	5	2.3	2.3	3.0	2.7	2.0	1.3	4.1	4.2	3.6	3.5
5	57	High yield	8	25.66	3	3	7	3	3	1	4	2.3	2.0	2.3	2.0	2.0	2.0	4.1	3.2	3.4	2.6
6	615	Early	8	31.43	3	3	7	5	3	1	4	2.3	2.7	3.0	3.0	2.3	2.0	3.1	3.6	2.2	2.9
7	619	Early	1	31.46	3	3	5	5	3	7	5	2.7	3.0	4.0	4.3	2.7	2.0	3.7	3.9	2.9	3.3
8	622	Early	8	38.44	3	3	5	5	3	1	5	2.0	3.3	2.3	2.3	2.7	3.0	2.8	2.8	2.5	2.2
9	623	Early	1	21.72	3	3	5	3	3	5	5	2.3	2.3	2.7	2.3	2.0	2.3	2.2	3.7	1.5	3.1
10	625	Early	8	33.41	3	3	3	3	3	7	5	3.0	3.3	2.7	3.0	2.0	2.7	3.3	3.8	2.5	3.1
11	628	Early	8	25.91	2	2	7	5	3	1	4	2.7	3.3	3.3	1.3	2.7	3.0	2.8	1.8	2.2	1.3
12	630	Early	8	30.24	3	3	7	3	3	1	5	3.3	3.0	3.3	3.7	3.7	3.0	2.6	3.4	1.7	2.7
13	634	Early	5	29.66	3	3	7	7	4	1	4	2.3	2.3	2.7	1.3	2.7	3.3	3.5	2.9	3.1	2.3
14	635	Early	9	29.75	3	3	5	3	4	1	6	2.7	2.7	3.0	4.0	2.7	2.0	3.1	4.5	2.4	3.7
15	636	Early	9	34.31	3	3	7	5	4	1	5	2.3	2.7	3.0	3.0	2.3	2.0	3.5	3.8	2.8	3.1
16	644	Durra	1	38.11	3	3	7	5	3	5	5	2.7	3.3	2.3	3.0	1.3	1.7	3.9	4.4	2.9	3.6
17	647	Durra	8	39.35	3	3	7	3	3	5	5	3.0	2.7	2.7	3.0	1.7	1.3	4.1	4.3	3.1	3.6
18	88003	High yield	8	29.48	3	3	5	5	3	7	5	2.0	2.3	2.3	2.3	2.0	2.0	4.3	3.0	3.3	2.3
19	88019	High yield	8	23.89	3	3	3	3	3	1	4	2.0	2.7	2.0	2.0	2.0	1.0	2.9	4.0	2.2	3.2
20	88020	High yield	8	24.15	3	3	5	3	3	5	4	2.0	2.0	2.3	1.3	2.0	1.0	3.1	4.0	2.6	3.1
Control																					
21	296B		8	29.61	3	3	5	5	3	1	5	2.3	2.7	3.0	2.7	1.3	1.3	4.1	3.3	3.5	2.1
Mean			1	30.05	-	-	-	-	-	-	5	2.52	2.70	2.87	2.76	2.20	2.03	3.44	3.55	2.74	2.87
SE ±			-	1.01	-	-	-	-	-	-	0.36	0.27	0.34	0.26	0.30	0.27	0.25	0.27	0.23	0.12	0.21
CV (%)			-	5.80	-	-	-	-	-	-	12.86	18.57	21.62	15.77	19.02	21.17	21.17	13.60	11.27	7.80	12.83
CD (5%)			-	2.88	-	-	-	-	-	-	1.03	0.77	0.87	0.74	0.85	0.77	0.74	0.77	0.84	0.63	0.88

Trait number →			48	49	50	51	52
Serial number	ICSB number	Trait	Seed set % in A-line under high atmospheric temperature Summer	Seed set % in A-line under open pollination Postrainy	Plant color Postrainy	Grain pericarp thickness Postrainy	Grain hardness in kg by Kiya's hardness tester Postrainy
			0	-	Tan	Thin	8.6
2	10	High yield	0	-	Tan	Thin	9.1
3	25	High yield	0	-	Tan	Thick	7.4
4	36	High yield	0	-	Tan	Thin	7.2
5	57	High yield	0	-	Purple	Thin	8.7
6	615	Early	0	40	Tan	-	-
7	619	Early	0	40	Tan	-	-
8	622	Early	0	25	Tan	-	-
9	623	Early	0	60	Tan	-	-
10	625	Early	0	40	Tan	-	-
11	628	Early	0	30	Non tan	-	-
12	630	Early	0	45	Tan	-	-
13	634	Early	0	40	Non tan	-	-
14	635	Early	0	25	Non tan	-	-
15	636	Early	0	40	Non tan	-	-
16	644	Durra	0	40	Non tan	-	-
17	647	Durra	0	25	Non tan	-	-
18	88003	High yield	0	-	-	-	-
19	88019	High yield	0	-	-	-	-
20	88020	High yield	0	-	-	-	-
Control							
21	296B		-	-	-	-	-
Mean			-	-	-	-	-
SE ±			-	-	-	-	-
CV (%)			-	-	-	-	-
CD (5%)			-	-	-	-	-

Annexure I-2. Characteristics of high yielding (medium maturity) sorghum B-lines evaluated during the rainy and post-rainy seasons, 2005 at ICRISAT-Patancheru.

Serial number		Trait number →		1		2		3		4		5		6		7		8		9		10	
		ICSB number		Trait		Coleoptile color		Fifth leaf sheath color		Leaf midrib color		Days to 50% flowering		Plant height (m) at flowering		Flag leaf: Extension of discoloration of mid rib		Flag leaf: intensity of green coloration of midrib compared to the blade		Flag leaf: yellow coloration of mid rib		Lemna: arista formation	
		Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy
1	2	High yield	2	1	1	1	1	2	2	68	90	1.2	0.8	3	1	2	2	1	1	1	1	1	1
2	3	High yield	2	1	3	3	3	2	2	65	78	1.0	0.7	3	1	2	2	1	1	1	1	1	1
3	15	High yield	2	1	1	1	1	2	2	68	73	1.0	0.7	5	5	-	-	1	1	1	1	1	1
4	17	High yield	2	1	3	3	3	2	2	73	77	0.8	0.6	1	5	2	-	1	1	1	1	1	1
5	19	High yield	2	2	3	3	3	2	2	72	72	1.1	0.6	1	7	2	-	1	1	1	1	1	1
6	20	High yield	2	1	1	1	1	2	2	74	77	1.0	0.7	1	1	2	2	1	1	1	1	1	1
7	23	High yield	1	1	1	1	1	2	2	68	71	0.9	0.8	1	7	2	-	1	1	1	1	1	1
8	24	High yield	1	1	1	1	1	2	2	66	77	0.8	0.6	1	5	2	-	1	1	1	1	1	1
9	29	High yield	2	2	3	3	3	2	2	68	80	0.8	0.6	1	1	2	2	1	1	1	1	1	1
10	34	High yield	2	2	1	3	3	2	2	69	78	0.8	0.6	5	5	2	-	1	1	1	1	1	1
11	41	High yield	1	1	1	1	1	2	2	69	87	0.9	0.7	1	1	2	2	1	1	1	1	1	1
12	47	High yield	1	1	1	3	3	2	2	69	91	1.1	0.9	1	1	2	2	1	1	1	1	1	1
13	54	High yield	1	1	1	1	1	2	2	71	88	1.0	0.8	1	1	2	2	1	1	1	1	1	1
14	59	High yield	2	1	1	1	1	2	2	67	77	0.9	0.7	1	5	2	2	1	1	1	1	1	1
15	67	High yield	2	2	3	3	3	2	2	66	77	0.9	0.6	1	1	2	2	1	1	1	1	1	1
16	82	High yield	2	2	3	3	3	2	2	68	78	0.9	0.7	1	1	2	2	1	1	1	1	1	1
17	94	High yield	2	1	1	1	1	2	1	71	91	1.5	1.1	1	1	2	2	1	1	1	1	1	1
18	617	Early	2	2	3	3	3	2	2	68	78	0.9	0.7	1	1	2	2	1	1	1	1	3	5
19	618	Early	2	1	1	1	1	2	2	64	72	1.4	0.9	1	1	2	2	1	1	1	1	1	1
20	620	Early	2	2	3	3	3	2	2	66	76	1.7	0.9	1	1	2	2	1	1	1	1	1	1
21	621	Early	2	2	3	3	3	2	2	71	77	1.4	0.9	1	1	2	2	1	1	1	1	1	1
22	626	Early	2	1	1	1	1	2	2	61	76	1.3	1.0	1	1	2	2	1	1	1	1	1	1
23	637	Early	2	1	1	1	1	2	2	65	76	0.7	0.5	1	5	2	-	1	1	1	1	1	1
24	638	Durra	2	2	3	3	3	2	2	70	81	1.6	1.0	1	5	2	-	1	1	1	1	1	1
25	639	Durra	2	2	1	3	3	2	2	66	74	1.4	0.8	1	1	2	2	1	1	1	1	1	1
26	640	Durra	2	2	1	3	3	2	2	71	75	1.5	0.8	1	1	2	2	1	1	1	1	3	3
27	643	Durra	2	2	3	3	3	2	2	68	77	1.1	0.7	1	1	2	2	1	1	1	1	1	1
28	645	Durra	2	2	1	1	1	2	2	67	79	1.1	0.8	1	1	2	2	1	1	1	1	1	1
29	646	Durra	2	2	1	1	1	2	2	67	79	1.0	0.7	1	1	2	2	1	1	1	1	1	1
30	648	Durra	2	2	3	3	3	2	2	71	78	1.0	0.7	1	1	2	2	1	1	1	1	1	1
31	649	Durra	2	2	1	1	1	2	2	79	86	1.5	1.0	1	1	2	2	1	1	1	1	1	1
32	650	Durra	2	2	1	3	3	2	2	75	82	1.2	0.7	1	1	2	2	1	1	1	1	1	1

Annexure I2-...:Contd.

Serial number	ICSB number	Trait	Trait number →		1		2		3		4		5		6		7		8		9		10	
					Colopitile color		Fifth leaf sheath color		Leaf midrib color		Days to 50% flowering		Plant height (m) at flowering		Flag leaf: Extension of discoloration of mid rib		Flag leaf: intensity of green coloration of midrib compared to the blade		Flag leaf: yellow coloration of mid rib		Glume hair color		Lemma: arista formation	
					Rainy	Posrainy	Rainy	Posrainy	Rainy	Posrainy	Rainy	Posrainy	Rainy	Posrainy	Rainy	Posrainy	Rainy	Posrainy	Rainy	Posrainy	Rainy	Posrainy	Rainy	Posrainy
33	658	Durra			1	1	1	1	2	2	75	90	1.1	0.8	5	1	-	2	1	1	1	1	1	1
34	660	Durra			1	1	1	1	2	2	74	78	1.4	0.7	1	1	2	2	1	1	1	1	3	1
35	663	Durra			2	2	1	3	2	2	76	100	1.0	0.7	1	5	2	-	1	1	1	1	5	5
36	665	Durra			2	2	1	3	2	2	71	90	1.1	0.8	1	1	2	2	1	1	1	1	9	5
37	666	Durra			2	1	1	1	2	2	71	81	1.5	1.0	1	5	2	2	1	1	1	1	1	1
38	668	Durra			2	1	1	1	2	1	67	75	1.1	0.8	1	5	2	2	1	1	1	1	1	1
39	88004	High yield			2	2	3	3	2	2	76	91	1.1	0.8	1	1	2	2	1	1	1	1	1	1
40	88005	High yield			1	1	1	1	2	2	72	85	1.0	0.7	1	1	2	2	1	1	1	1	1	1
41	88006	High yield			2	1	1	1	2	2	77	91	0.9	0.6	1	1	2	2	1	1	1	1	1	1
42	88008	High yield			2	1	1	1	2	2	76	86	0.9	0.6	1	1	2	2	1	1	1	1	1	1
43	88009	High yield			2	1	1	1	2	2	77	81	0.9	0.7	1	1	2	2	1	1	1	1	1	1
44	88012	High yield			2	1	1	1	2	2	67	84	1.0	0.7	1	1	2	2	1	1	1	1	1	1
45	88014	High yield			2	1	1	1	2	2	71	81	1.2	0.9	1	1	2	2	1	1	1	1	1	1
46	88015	High yield			2	1	1	1	2	2	69	78	1.2	0.8	1	1	2	2	1	1	1	1	1	1
47	89002	High yield			2	2	3	3	2	2	74	88	1.1	0.7	1	1	2	2	1	1	1	1	1	1
48	90002	High yield			1	1	1	1	2	2	76	86	1.0	0.7	1	1	2	2	1	1	1	1	1	1
49	90004	High yield			1	1	1	1	2	2	82	85	1.4	0.9	1	1	2	2	1	1	1	1	1	1
50	91004	High yield			1	1	1	1	2	2	74	86	1.3	0.9	1	1	2	2	1	1	1	1	1	1
Control																								
51	296 B	High yield			2	2	3	3	2	2	77	94	1.0	0.8	1	1	2	2	1	1	1	1	5	5
Mean											71	81	1.12	0.77										
SE ±											1.06	1.4	0.04	0.03										
CV (%)											2.59	2.97	5.83	7.15										
CD (5%)											2.98	3.57	0.11	0.10										

Early- Early maturity; Durra- Durra large grain.

Trait No. 1-41 : Traits stipulated in the DUS-test guidelines (Trait no 38 was not recorded in the current trials).

Trait No. 42-48 : Ancillary traits recorded in the current trials.

Trait No. 49-52 : Monitored traits recorded in various trials conducted earlier at ICRISAT.

Trait number →		11		12		13		14		15		16		17		18		19		20		21	
Serial number	ICSB number	Stigma: anthocyanin coloration		Stigma: yellow coloration		Stigma length		Pedicellate flower length		Length of anther		Dried anther color		Glume color		Plant height (m) at maturity		Stem thickness (mm)		Juicy score		Brix reading (%)	
	Trait	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
1	2	High yield	1	1	1	3	5	5	5	7	5	6	6	4	5	1.4	1.1	14.7	16.7	1	1	5.9	12.9
2	3	High yield	1	1	5	5	3	3	3	5	5	6	4	2	2	1.3	0.9	17.5	14.4	1	1	10.4	14.7
3	15	High yield	1	1	1	3	3	5	5	5	5	6	6	4	2	1.4	1.1	18.9	17.0	1	1	10.6	15.3
4	17	High yield	1	1	1	3	3	5	5	5	5	4	4	4	5	1.3	1.0	20.6	15.7	1	1	12.2	15.0
5	19	High yield	1	1	5	5	5	5	5	5	3	6	4	5	5	1.5	1.0	18.9	16.0	1	1	6.7	14.9
6	20	High yield	1	1	1	5	3	5	5	5	5	6	6	5	5	1.4	1.1	18.8	14.8	1	1	9.8	15.4
7	23	High yield	1	1	5	3	3	5	5	5	5	6	6	4	5	1.3	1.1	17.9	15.0	1	1	12.4	14.6
8	24	High yield	1	1	1	5	3	5	5	5	3	4	4	4	2	1.2	0.9	17.9	16.6	1	1	16.0	17.1
9	29	High yield	1	1	5	5	5	3	3	5	5	4	4	5	7	1.2	1.0	20.9	15.8	2	1	7.1	14.2
10	34	High yield	1	1	5	3	3	5	5	5	5	6	7	6	2	1.2	0.9	18.8	15.6	1	1	14.8	17.8
11	41	High yield	1	1	1	3	3	5	5	5	5	6	6	2	2	1.4	1.1	19.2	15.1	1	1	6.7	13.0
12	47	High yield	1	1	5	3	5	5	5	5	5	4	4	4	5	1.4	1.1	17.3	14.0	1	1	10.7	9.6
13	54	High yield	1	1	7	9	5	5	5	3	5	4	4	4	5	1.2	1.0	21.0	16.3	2	2	7.2	12.3
14	59	High yield	1	1	5	5	5	5	5	5	5	4	4	5	5	1.2	1.0	16.9	13.3	2	1	8.4	16.0
15	67	High yield	1	1	5	3	3	5	5	5	5	7	4	5	5	1.2	1.0	15.7	13.8	1	1	7.2	15.4
16	82	High yield	1	1	5	3	5	3	5	5	5	6	4	2	2	1.1	0.9	15.7	15.6	2	1	10.7	13.1
17	94	High yield	1	1	5	3	5	7	7	5	5	6	6	2	2	1.3	1.3	20.7	19.0	1	1	12.9	14.7
18	617	Early	1	1	5	9	5	5	5	3	3	4	4	2	2	1.2	1.0	16.6	14.6	1	1	3.3	11.9
19	618	Early	1	1	5	3	3	5	5	5	5	7	4	7	7	1.8	1.3	17.6	14.9	1	1	13.1	13.4
20	620	Early	1	1	5	5	5	5	5	5	5	4	6	5	5	1.9	1.3	16.6	16.3	1	1	10.4	14.3
21	621	Early	1	1	5	5	5	5	5	5	5	6	6	5	5	1.7	1.2	20.0	14.8	1	1	9.9	16.3
22	626	Early	1	1	7	3	3	5	5	5	5	7	7	7	8	1.7	1.4	15.1	12.6	1	1	7.1	12.3
23	637	Early	1	1	7	3	3	5	5	5	5	7	7	8	8	1.1	0.8	17.2	17.4	1	1	4.3	13.8
24	638	Durra	1	1	1	9	5	5	5	5	5	6	6	7	7	1.9	1.3	18.2	16.1	1	1	5.2	15.9
25	639	Durra	1	1	7	9	5	5	5	5	5	4	6	2	2	1.7	1.1	19.0	14.4	2	1	4.0	11.3
26	640	Durra	1	1	7	9	5	7	5	5	5	6	6	1	1	1.8	1.1	18.6	15.8	1	1	5.6	10.9
27	643	Durra	1	1	5	5	5	5	5	5	5	4	6	5	2	1.4	1.0	16.7	14.7	2	1	5.4	15.6
28	645	Durra	1	1	5	1	5	5	5	5	5	4	6	1	1	1.4	1.1	17.7	16.2	1	1	4.8	14.3
29	646	Durra	1	1	5	3	5	5	5	5	5	4	4	1	1	1.2	0.9	17.2	15.0	2	1	8.8	15.3
30	648	Durra	1	1	5	3	5	5	5	5	7	4	4	1	1	1.3	1.0	18.1	16.7	2	1	7.0	17.4
31	649	Durra	1	1	1	5	5	7	5	5	3	6	4	1	5	1.7	1.3	19.0	14.5	1	1	6.6	10.1
32	650	Durra	1	1	1	3	3	5	5	5	5	6	6	1	5	1.4	1.0	18.6	17.0	2	1	6.8	14.3

Serial number	ICSB number	Trait number →	11		12		13		14		15		16		17		18		19		20		21	
			Stigma: anthocyanin coloration		Stigma: yellow coloration		Stigma length		Pedicellate flower length		Length of anther		Dried anther color		Glume color		Plant height (m) at maturity		Stem thickness (mm)		Juicy score		Brix reading (%)	
			Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
33	658	Durra	1	1	1	1	3	5	5	5	5	5	6	4	4	5	1.3	1.1	20.0	18.1	2	1	7.9	15.7
34	660	Durra	1	1	5	7	5	3	5	5	5	5	6	4	4	5	1.7	1.0	16.0	14.4	2	1	7.6	14.2
35	663	Durra	1	1	1	1	9	5	5	5	5	5	4	4	1	1	1.3	0.9	22.5	21.9	2	1	6.7	16.2
36	665	Durra	1	1	1	1	9	5	5	5	5	5	6	-	2	2	1.5	1.1	17.3	16.6	2	-	9.0	16.7
37	666	Durra	1	1	5	1	3	3	5	5	5	5	4	6	4	4	1.9	1.4	18.7	16.6	1	1	12.8	15.4
38	668	Durra	1	1	5	1	3	3	5	5	5	5	7	4	4	4	1.4	1.0	20.2	17.6	2	1	7.7	10.9
39	88004	High yield	1	1	1	1	3	3	7	7	5	5	6	6	5	7	1.5	1.1	22.9	19.2	1	1	10.0	11.4
40	88005	High yield	1	1	1	1	5	5	5	5	5	5	6	4	4	5	1.4	1.0	18.3	15.0	1	1	12.1	11.2
41	88006	High yield	1	1	1	1	3	3	5	5	5	5	4	4	4	5	1.3	1.0	24.1	16.6	1	1	8.0	12.2
42	88008	High yield	1	1	1	1	3	3	5	3	5	5	6	4	5	5	1.3	1.0	21.8	15.9	1	1	11.4	10.0
43	88009	High yield	1	1	1	1	3	3	3	3	5	5	6	4	4	5	1.4	1.1	18.6	14.4	2	1	11.7	17.2
44	88012	High yield	1	1	1	1	5	5	5	5	3	5	4	4	4	5	1.4	1.0	18.0	15.6	1	1	12.9	13.3
45	88014	High yield	1	1	1	1	5	3	5	5	5	5	6	4	7	7	1.6	1.3	20.3	15.4	1	1	10.2	14.2
46	88015	High yield	1	1	5	1	5	5	5	5	5	5	4	4	7	7	1.5	1.1	18.2	16.0	1	1	12.6	13.8
47	89002	High yield	1	1	1	1	3	5	5	5	3	3	6	6	4	4	1.5	1.0	18.2	13.8	1	1	15.7	17.3
48	90002	High yield	1	1	1	1	3	3	3	3	5	5	6	4	4	5	1.4	1.1	19.9	15.3	2	1	8.2	12.7
49	90004	High yield	1	1	1	1	5	5	5	5	5	5	6	6	4	1	1.6	1.1	22.6	16.8	1	1	12.0	13.3
50	91004	High yield	1	1	1	1	3	3	5	5	5	5	6	4	5	5	1.6	1.3	18.3	17.1	2	1	5.1	11.1
Control																								
51	296 B	High yield	1	1	1	1	5	5	5	5	3	5	4	4	2	2	1.4	1.1	20.7	16.0	2	1	8.1	15.8
Mean																	1.45	1.09	18.71	15.75			9.03	14.00
SE ±																	0.04	0.03	0.90	0.92			1.00	1.10
CV (%)																	5.17	4.21	8.37	10.15			19.15	13.67
CD (5%)																	0.12	0.10	2.55	2.65			2.82	3.10

Serial number	ICSB number	Trait	22		23		24		25		26		27		28		29		30		31		32	
			Leaf length (cm)		Leaf width (cm)		Panicle length (cm)		Panicle branch length (cm)		Panicle compactness		Panicle shape		Panicle exertion (cm)		Glume coverage (%)		Shattering		Thresholdity%		Grain form	
			Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
1	2	High yield	73.1	63.0	7.4	6.3	23.8	21.4	5.2	4.9	7	7	3	3	4.1	6.8	50	25	1	1	1	1	1	1
2	3	High yield	79.2	55.1	8.8	6.2	31.2	22.8	7.4	5.0	5	5	3	3	0.0	4.7	25	25	1	1	1	1	1	1
3	15	High yield	72.7	59.9	7.7	6.7	35.7	26.9	8.1	7.7	5	5	3	3	5.2	9.2	25	25	1	1	1	1	1	1
4	17	High yield	66.7	59.7	8.9	6.9	32.6	25.0	8.5	6.7	5	5	3	3	13.0	14.9	25	25	1	1	1	1	1	1
5	19	High yield	76.9	58.4	9.1	6.4	25.8	21.3	6.4	5.4	-	7	-	3	12.0	14.4	25	25	1	1	1	1	1	1
6	20	High yield	73.1	61.7	7.1	6.8	28.2	23.9	6.9	5.4	7	7	3	3	14.8	16.9	25	25	1	1	1	1	1	1
7	23	High yield	75.4	56.9	7.7	6.4	32.4	27.7	6.9	6.3	5	5	3	3	0.2	6.4	50	42	1	1	1	1	1	1
8	24	High yield	69.1	63.0	8.4	7.2	32.1	24.9	6.8	5.7	5	7	3	3	5.9	8.2	25	25	1	1	1	1	1	1
9	29	High yield	67.2	57.0	8.3	5.6	27.3	19.7	7.6	4.7	-	7	-	3	11.9	17.8	25	25	1	1	1	1	1	1
10	34	High yield	73.6	57.6	9.0	6.8	29.8	22.9	7.9	6.4	5	7	3	3	11.0	12.7	25	25	1	1	1	1	1	1
11	41	High yield	65.2	50.0	8.1	6.3	33.6	26.9	7.4	5.9	5	7	3	3	14.2	15.0	25	25	1	1	1	1	1	1
12	47	High yield	68.9	55.4	7.8	5.3	28.7	22.8	8.0	5.4	5	5	3	3	2.9	6.9	33	25	1	1	1	1	1	1
13	54	High yield	68.0	51.7	8.7	6.1	21.8	18.0	6.8	3.2	7	7	3	3	6.1	11.0	42	25	1	1	1	1	1	1
14	59	High yield	67.1	51.7	7.3	5.7	29.2	21.6	7.7	5.9	5	5	3	3	0.2	13.9	50	33	1	1	1	1	1	1
15	67	High yield	68.3	57.3	7.3	6.4	25.7	21.3	5.3	4.6	7	7	3	3	10.4	14.2	25	25	1	1	1	1	1	1
16	82	High yield	62.8	60.3	7.3	6.7	23.7	21.0	7.3	4.9	5	7	3	3	3.6	3.8	25	25	1	1	1	1	1	1
17	94	High yield	68.8	62.4	8.8	6.6	21.6	18.1	5.0	3.6	7	9	3	3	1.2	4.6	50	25	1	1	1	1	1	1
18	617	Early	59.1	51.1	7.4	6.4	25.6	21.1	9.3	5.9	5	7	3	3	4.8	10.1	25	25	1	1	1	1	1	1
19	618	Early	65.0	50.7	8.9	6.7	27.0	21.9	6.4	4.8	7	7	3	3	13.7	14.2	33	25	1	1	1	1	1	1
20	620	Early	64.1	53.8	7.3	5.7	18.4	16.0	5.2	4.7	5	5	4	4	13.7	12.2	50	25	1	1	1	1	1	1
21	621	Early	71.4	59.1	7.7	5.8	25.1	17.2	6.1	4.0	7	7	3	3	11.2	13.9	33	25	1	1	1	1	1	1
22	626	Early	67.6	56.4	7.8	5.7	27.4	18.4	6.9	4.3	5	7	3	3	11.4	22.0	33	33	1	1	1	1	1	1
23	637	Early	62.4	55.2	7.1	6.6	28.8	20.6	8.1	5.6	5	5	3	3	5.7	9.9	50	33	1	1	1	1	1	1
24	638	Durra	69.2	61.0	8.6	7.5	22.8	19.7	6.4	5.1	5	7	3	3	5.4	14.7	42	25	1	1	1	1	1	1
25	639	Durra	70.0	56.2	8.3	5.8	28.3	19.8	6.4	4.2	7	7	3	3	5.1	17.4	38	25	1	1	1	1	1	1
26	640	Durra	66.9	55.0	9.8	6.3	27.2	18.8	7.0	3.6	5	7	3	3	8.7	17.0	25	33	1	1	1	1	1	1
27	643	Durra	62.3	54.6	7.4	5.8	21.9	18.1	5.8	4.2	5	7	3	4	5.0	7.6	42	25	1	1	1	1	1	1
28	645	Durra	67.1	63.7	6.7	5.9	23.8	20.7	5.4	4.7	7	7	3	4	6.0	12.4	50	25	1	1	1	1	1	1
29	646	Durra	62.7	62.2	7.2	5.8	23.3	19.0	5.7	4.8	5	7	3	4	3.2	8.3	42	25	1	1	1	1	1	1
30	648	Durra	61.2	61.0	7.8	6.0	25.0	19.1	6.1	4.9	5	7	3	3	1.8	9.2	42	33	1	1	1	1	1	1
31	649	Durra	70.8	57.4	8.1	6.6	24.6	18.6	5.1	3.7	7	7	3	4	0.0	4.4	33	25	1	1	1	1	1	1
32	650	Durra	63.8	61.1	7.1	6.3	22.8	17.4	5.3	4.0	5	7	3	3	2.3	8.3	50	33	1	1	1	1	1	1

Serial number		ICSB number	Trait number →		22		23		24		25		26		27		28		29		30		31		32	
			Trait		Leaf length (cm)		Leaf width (cm)		Panicke length (cm)		Panicke branch length (cm)		Panicke compactness		Panicke shape		Panicke exertion (cm)		Glume coverage (%)		Shattering		Threshability%		Grain form	
			Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy
33	658	Durra	77.4	63.1	8.2	7.1	24.6	21.2	6.6	4.4	7	7	3	3	3	3	2.4	7.7	25	25	1	1	1	1	1	1
34	660	Durra	67.9	52.8	8.6	6.8	26.0	18.4	9.3	5.7	5	5	3	3	3	3	10.1	12.7	42	33	1	1	1	1	1	1
35	663	Durra	72.8	65.0	8.9	6.7	31.8	29.0	5.5	6.2	7	7	3	3	3	3	0.0	0.0	25	25	1	1	1	1	1	1
36	665	Durra	82.6	61.1	8.8	6.3	33.4	27.3	6.5	5.3	5	5	3	3	3	3	4.2	3.4	33	25	1	1	1	1	1	1
37	666	Durra	67.0	58.2	8.2	6.1	24.6	19.2	6.5	3.3	5	5	3	3	3	3	17.0	20.2	50	25	1	1	1	1	1	1
38	668	Durra	76.7	61.2	8.4	6.7	28.3	18.9	6.1	4.8	5	5	3	3	3	3	6.8	11.4	25	25	1	1	1	1	1	1
39	88004	High yield	66.1	54.8	8.4	5.9	32.6	23.9	9.0	5.8	5	7	3	3	3	3	3.3	18.1	50	25	1	1	1	1	1	1
40	88005	High yield	70.7	57.8	7.6	6.0	31.0	24.4	8.1	6.0	5	5	3	3	3	3	15.0	14.1	50	25	1	1	1	1	1	1
41	88006	High yield	73.7	55.8	9.7	6.2	35.1	25.7	11.2	8.1	5	5	3	3	3	3	11.0	20.7	25	25	1	1	1	1	1	1
42	88008	High yield	64.1	53.1	9.1	5.9	33.2	24.4	7.9	4.8	5	7	3	3	3	3	5.8	14.8	58	33	1	1	1	1	1	1
43	88009	High yield	65.1	55.7	8.0	6.5	29.8	22.3	8.2	6.6	5	5	3	3	3	3	19.1	18.4	25	25	1	1	1	1	1	1
44	88012	High yield	61.2	53.3	7.6	6.7	30.6	22.4	9.0	5.4	5	5	3	3	3	3	9.4	6.8	33	25	1	1	1	1	1	1
45	88014	High yield	72.4	60.1	8.6	7.5	34.0	23.6	10.7	6.2	5	7	3	3	3	3	4.7	15.6	25	25	1	1	1	1	1	1
46	88015	High yield	76.7	60.7	8.2	6.9	29.9	23.0	6.9	5.1	5	7	3	3	3	3	4.3	8.9	58	33	1	1	1	1	1	1
47	89002	High yield	72.1	60.4	8.4	6.6	26.8	18.0	8.9	5.3	5	7	3	3	3	3	8.4	12.6	33	25	1	1	1	1	1	1
48	90002	High yield	59.8	52.6	7.9	5.9	33.6	25.4	8.4	4.9	5	7	3	3	3	3	8.2	21.3	33	33	1	1	1	1	1	1
49	90004	High yield	67.4	57.8	7.7	6.3	23.4	17.6	6.8	4.1	7	7	3	3	3	3	0.0	4.3	33	33	1	1	1	1	1	1
50	91004	High yield	70.8	59.9	7.8	5.7	28.3	24.3	7.8	6.0	5	5	3	3	3	3	10.1	12.4	33	25	1	1	1	1	1	1
Control																										
51	296 B	High yield	74.6	59.4	8.2	6.8	31.9	24.0	5.9	5.0	7	7	3	3	3	3	0.0	5.1	25	25	1	1	1	1	1	1
Mean			68.97	57.65	8.11	6.37	27.94	21.80	7.20	5.20							6.83	11.42	35.25	27.12	1	1	1	1	1	1
SE ±			3.15	2.92	0.39	0.40	0.96	0.93	0.45	0.38							0.72	0.94	5.16	3.94	1	1	1	1	1	1
CV (%)			7.92	8.76	8.41	10.80	5.97	7.43	10.73	12.64							18.20	14.26	25.35	25.14	1	1	1	1	1	1
CD (5%)			8.88	8.50	1.11	1.12	2.71	2.65	1.26	1.17							2.02	2.33	14.74	12.97	1	1	1	1	1	1

Serial number	ICSB number	Trait number →		33	34	35	36	37	39	40	41	42	43		44	45		46		47
		Trait	→										Postrainy	Rainy		Postrainy	Rainy	Postrainy	Rainy	
1	2	High yield		8	25.74	3	3	5	3	3	1	4	6	2.0	1.3	1.3	1.7	3.5	2.9	2.6
2	3	High yield		1	30.03	3	3	5	3	3	7	6	7	2.3	2.0	1.3	2.0	4.4	3.3	2.3
3	15	High yield		8	24.89	3	3	5	3	3	1	5	8	2.3	2.0	1.7	1.7	3.1	2.5	2.4
4	17	High yield		1	27.43	3	3	7	3	3	7	6	8	2.7	2.0	3.0	2.3	3.7	2.3	2.5
5	19	High yield		1	30.67	3	3	7	3	3	5	5	7	3.0	2.7	3.0	1.0	4.0	2.9	3.4
6	20	High yield		1	30.03	3	3	5	5	3	7	5	7	2.0	3.0	2.7	2.3	3.7	4.7	4.1
7	23	High yield		1	26.01	3	3	5	7	3	5	4	7	1.7	2.0	3.0	2.7	4.0	2.0	3.1
8	24	High yield		1	26.57	3	3	5	5	3	5	6	7	2.3	2.3	3.0	2.7	3.3	4.3	3.4
9	29	High yield		8	26.81	3	3	5	3	3	1	5	7	2.7	2.3	3.0	2.5	3.5	4.4	3.6
10	34	High yield		8	27.98	3	3	5	5	3	5	5	7	1.7	2.3	3.3	1.7	3.9	2.8	3.2
11	41	High yield		8	30.41	3	3	5	3	3	5	5	7	2.3	3.3	2.7	3.0	3.2	2.4	2.0
12	47	High yield		8	22.27	3	3	5	3	3	5	5	7	2.7	3.3	2.7	2.7	3.0	3.5	2.8
13	54	High yield		8	28.17	3	3	5	5	3	1	5	7	3.3	2.7	2.0	2.3	3.1	3.8	3.2
14	59	High yield		1	27.12	3	3	5	5	3	3	5	7	2.3	2.0	3.0	2.3	2.9	3.1	2.2
15	67	High yield		8	27.88	3	3	5	5	3	5	7	8	2.0	2.7	3.0	2.7	3.3	3.5	2.7
16	82	High yield		8	29.38	3	3	5	5	3	1	6	7	2.3	2.3	3.3	2.7	3.7	4.9	4.0
17	94	High yield		8	32.77	3	3	5	3	3	5	5	7	2.7	3.0	2.3	1.3	4.6	4.8	3.5
18	617	Early		1	30.69	3	3	5	5	3	5	5	7	2.0	2.7	2.3	2.7	2.6	3.4	1.8
19	618	Early		1	34.07	3	3	5	3	3	5	4	7	2.7	2.0	1.3	2.0	3.3	2.8	2.2
20	620	Early		8	40.79	3	3	7	5	3	5	4	6	3.0	2.7	2.0	1.7	4.1	3.2	3.4
21	621	Early		8	35.30	3	3	7	5	3	7	5	7	3.0	1.7	1.7	2.3	3.6	3.2	2.4
22	626	Early		9	32.38	2	2	5	5	4	5	4	6	2.0	3.0	2.0	2.0	3.5	3.4	2.5
23	637	Early		9	28.69	2	2	5	5	4	5	6	7	3.0	2.7	3.0	3.0	2.8	3.6	3.1
24	638	Durra		8	30.40	3	3	5	5	3	5	5	7	1.7	2.0	2.3	2.0	4.6	4.3	3.5
25	639	Durra		1	41.19	3	3	7	5	3	5	5	6	3.0	2.3	2.0	1.0	4.2	2.7	3.0
26	640	Durra		8	40.56	3	3	7	7	3	1	6	7	3.0	2.7	2.3	1.3	4.5	1.7	3.3
27	643	Durra		1	40.02	3	3	7	5	3	1	5	7	2.7	3.0	2.7	1.3	4.0	3.7	3.0
28	645	Durra		8	38.63	3	3	7	5	3	5	5	7	3.3	3.0	2.3	1.7	4.3	4.8	3.1
29	646	Durra		8	37.88	3	3	7	3	3	5	5	7	2.3	3.0	3.0	1.3	3.9	4.3	2.9
30	648	Durra		8	39.30	3	3	5	5	3	5	5	7	3.3	2.7	3.0	2.0	3.8	4.6	3.5
31	649	Durra		8	31.38	3	3	5	5	3	1	7	7	3.0	2.0	2.3	1.3	5.5	4.7	4.0
32	650	Durra		8	30.12	3	3	5	3	3	5	6	7	2.7	2.7	3.3	2.3	3.8	4.4	3.6

		Trait number →		33	34	35	36	37	39	40	41	42	43	44	45	46	47	
Serial number	ICSB number	Trait	Grain color	1000-grain mass (g)	Grain shape- dorsal view	Grain shape- profile view	Grain germ size	Grain germ texture	Endosperm texture	Albumen color	Grain lustre	Days to seedling emergence	Leaf glossy score	Seedling vigor score	Plant aspect score	Panicle yield (t ha ⁻¹)	Grain yield (t ha ⁻¹)	
				Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy
33	658	Durra	8	28.49	3	3	5	3	3	3	5	5	6	2.7	2.3	1.7	6.0	4.6
34	660	Durra	8	29.57	3	3	5	5	5	3	5	5	7	2.7	2.3	2.7	4.0	3.8
35	663	Durra	8	30.80	3	3	5	7	7	3	1	7	9	3.0	3.7	5.0	4.2	3.3
36	665	Durra	8	33.37	3	3	5	5	5	3	1	6	8	3.0	3.3	3.0	3.8	2.9
37	666	Durra	8	34.60	3	3	5	5	5	3	7	4	7	2.3	2.7	2.0	2.3	2.1
38	668	Durra	1	36.84	3	3	5	5	5	3	7	6	8	2.3	2.0	2.7	4.1	2.8
39	88004	High yield	8	27.44	3	3	5	3	3	3	1	5	7	3.0	2.7	2.0	4.3	2.5
40	88005	High yield	1	29.99	3	3	5	3	3	3	7	6	7	2.7	3.3	2.7	3.7	2.1
41	88006	High yield	8	31.58	3	3	5	3	3	3	1	6	7	3.3	3.0	2.7	4.5	2.2
42	88008	High yield	1	27.87	3	3	5	3	3	3	5	5	7	2.3	2.7	2.7	3.8	2.4
43	88009	High yield	1	27.46	3	3	7	3	3	3	5	5	7	2.3	2.0	1.7	3.0	2.7
44	88012	High yield	1	29.74	3	3	5	3	3	3	7	5	7	2.0	2.7	2.0	4.1	2.3
45	88014	High yield	1	26.91	2	2	5	3	3	3	7	5	7	2.0	2.3	1.0	4.8	2.5
46	88015	High yield	1	32.78	3	3	5	3	3	3	7	4	6	2.3	2.7	2.0	4.1	3.8
47	89002	High yield	8	24.55	3	3	5	5	3	3	1	4	7	1.7	2.0	3.0	4.4	2.3
48	90002	High yield	1	27.95	3	3	5	3	3	3	7	5	7	2.7	2.0	2.0	3.8	2.5
49	90004	High yield	8	20.05	3	3	5	5	5	3	5	5	7	2.0	2.0	1.0	3.3	2.5
50	91004	High yield	1	29.35	3	3	5	5	5	3	7	5	7	3.3	2.0	2.3	4.9	2.8
Control																		
51	296 B	High yield	8	26.91	3	3	5	7	7	3	1	6	7	2.7	3.0	2.3	4.4	1.9
Mean				30.51								5	7	2.53	2.57	2.25	3.86	2.83
SE ±				0.94								0.43	0.24	0.31	0.29	0.28	0.34	0.23
CV (%)				5.33								14.30	6.03	21.32	19.62	18.83	23.19	17.02
CD (5%)				2.64								1.20	0.96	0.87	0.84	0.78	0.94	0.86

Serial number	ICSB number	Trait number →		48	49	50	51	52
		Trait	Seed set % in A-line under high atmospheric temperature		Seed set % in A-line under open pollination	Plant color	Grain per carp thickness	Grain hardness in kg by Kiya's hardness tester
1	2	High yield	0	-	Tan	Thin	7.4	7.4
2	3	High yield	0	-	Tan	Thin	9.8	9.8
3	15	High yield	0	-	Tan	Thick	7.3	7.3
4	17	High yield	0	-	Tan	Thin	7.2	7.2
5	19	High yield	0	-	Tan	Thick	7.8	7.8
6	20	High yield	0	-	Tan	Thick	13	13
7	23	High yield	0	-	Tan	Thick	9.9	9.9
8	24	High yield	0	-	Tan	Thick	7	7
9	29	High yield	0	-	Tan	Thick	6.2	6.2
10	34	High yield	0	-	Tan	Thick	7.1	7.1
11	41	High yield	0	-	Tan	Thin	8.9	8.9
12	47	High yield	0	-	Tan	Thin	5.3	5.3
13	54	High yield	0	-	Tan	Thin	5.5	5.5
14	59	High yield	0	-	Tan	Thin	6.9	6.9
15	67	High yield	0	-	Tan	Thin	8.2	8.2
16	82	High yield	0	-	Tan	Thin	7.9	7.9
17	94	High yield	0	-	Tan	Thin	8.4	8.4
18	617	Early	0	80	Tan	-	-	-
19	618	Early	0	60	Non tan	-	-	-
20	620	Early	0	50	Tan	-	-	-
21	621	Early	0	-	Tan	-	-	-
22	626	Early	0	50	Non tan	-	-	-
23	637	Early	0	25	Non tan	-	-	-
24	638	Durra	0	60	Non tan	-	-	-
25	639	Durra	0	80	Non tan	-	-	-
26	640	Durra	0	-	Non tan	-	-	-
27	643	Durra	0	55	Non tan	-	-	-
28	645	Durra	0	-	Non tan	-	-	-
29	646	Durra	0	50	Non tan	-	-	-
30	648	Durra	0	15	Non tan	-	-	-
31	649	Durra	10	10	Non tan	-	-	-
32	650	Durra	0	60	Non tan	-	-	-

Serial number	ICSB number	Trait number →	48	49	50	51	52
		Trait	Seed set % in A-line under high atmospheric temperature	Seed set % in A-line under open pollination	Plant color	Grain pericarp thickness	Grain hardness in kg by Kiya's hardness tester
33	658	Durra	0	65	Tan	-	-
34	660	Durra	0	55	Tan	-	-
35	663	Durra	0	45	Tan	-	-
36	665	Durra	0	30	Tan	-	-
37	666	Durra	0	40	Tan	-	-
38	668	Durra	0	85	Tan	-	-
39	88004	High yield	0	-	-	-	-
40	88005	High yield	0	-	-	-	-
41	88006	High yield	0	-	-	-	-
42	88008	High yield	0	-	-	-	-
43	88009	High yield	0	-	-	-	-
44	88012	High yield	10	-	-	-	-
45	88014	High yield	0	-	-	-	-
46	88015	High yield	0	-	-	-	-
47	89002	High yield	0	-	-	-	-
48	90002	High yield	0	-	-	-	-
49	90004	High yield	0	-	-	-	-
50	91004	High yield	0	-	-	-	-
Control							
51	296 B	High yield	-	-	-	-	-
Mean			-	-	-	-	-
SE ±			-	-	-	-	-
CV (%)			-	-	-	-	-
CD (5%)			-	-	-	-	-

Annexure 1-3. Characteristics of disease resistant (early maturity) sorghum B-lines evaluated during the rainy and postrainy seasons, 2005 at ICRISAT-Patancheru.

Trait number →		1		2		3		4		5		6		7		8		9		10	
Serial number	ICSB number	Coleoptile color		Fifth leaf sheath color		Leaf midrib color		Days to 50% flowering		Plant height (m) at flowering		Flag leaf: Extension of discoloration of mid rib		Flag leaf: intensity of green coloration of midrib compared to the blade		Flag leaf: yellow coloration of mid rib		Glume hair color		Lemma: arista formation	
	Trait	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
1	208 DM-R	1	1	1	3	2	2	66	76	1.4	0.9	1	5	2	2	1	1	1	1	1	1
2	268 AN-R	1	1	1	1	2	2	72	76	1.2	0.7	1	1	2	2	1	1	1	1	1	1
3	311 LB-R	1	1	1	1	1	2	70	79	1.0	0.8	1	1	2	2	1	1	1	1	1	1
4	329 RU-R	1	1	1	1	1	2	70	74	1.2	0.9	1	1	2	2	1	1	1	1	1	1
5	363 GM-R	1	1	1	1	2	2	66	76	1.4	1.1	1	1	2	2	1	1	1	1	1	1
6	364 GM-R	1	1	1	1	1	2	66	81	1.7	1.1	1	1	2	2	1	1	1	1	1	1
7	373 GM-R	1	1	1	1	2	2	65	83	1.5	1.3	1	1	2	2	1	1	1	1	1	1
8	375 GM-R	1	1	1	1	2	2	65	82	1.6	1.2	1	1	2	2	1	1	1	1	1	1
9	380 GM-R	1	1	1	1	1	2	65	71	1.4	1.0	1	1	2	2	1	1	1	1	1	1
10	385 GM-R	1	1	1	1	2	2	65	81	0.9	0.7	1	1	2	2	1	1	1	1	1	1
11	386 GM-R	1	1	1	1	2	2	64	77	1.4	1.1	1	1	2	2	1	1	1	1	1	1
12	388 GM-R	1	2	3	1	2	2	66	79	1.6	1.3	1	1	2	2	1	1	1	1	1	1
13	390 GM-R	1	1	1	1	2	2	65	99	1.5	1.5	1	1	2	2	1	1	1	1	1	1
14	408 GM-R	2	2	1	3	2	2	62	76	1.4	1.0	1	1	2	2	1	1	1	1	1	1
Control																					
15	296B High yield	2	1	3	1	2	2	76	95	1.1	0.8	1	1	2	2	1	1	1	1	5	5
Mean		-	-	-	-	-	-	68	81	1.42	1.06	-	-	-	-	-	-	-	-	-	-
SE ±		-	-	-	-	-	-	0.74	1.19	0.13	0.03	-	-	-	-	-	-	-	-	-	-
CV (%)		-	-	-	-	-	-	1.88	2.54	15.64	5.69	-	-	-	-	-	-	-	-	-	-
CD (5%)		-	-	-	-	-	-	2.17	3.06	0.38	0.27	-	-	-	-	-	-	-	-	-	-

AN- Anthracnose; DM- Downy mildew; LB= Leaf blight; RU- Rust; GM- Grain mold; R- Resistant.

Trait No. 1-41 : Traits stipulated in the DUS-test guidelines (Trait no 38 was not recorded in the current trials).

Trait No. 42-48 : Ancillary traits recorded in the current trials.

Trait No. 49-56 : Monitored traits recorded in various trials conducted earlier at ICRISAT.

Serial number	ICSIB number	Trait	11		12		13		14		15		16		17		18		19		20		21	
			Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy
1	208	DM-R	1	1	1	1	3	5	5	5	5	5	6	6	4	2	1.8	1.2	18.4	14.0	1	1	13.0	14.8
2	268	AN-R	1	1	5	1	3	3	5	3	5	5	6	6	2	2	1.4	1.1	18.4	16.6	1	1	6.9	12.0
3	311	LB-R	1	1	5	1	3	3	7	5	7	7	4	4	4	2	1.2	0.9	18.0	17.3	1	1	20.7	16.9
4	329	RU-R	1	1	5	1	3	3	5	5	5	5	6	6	2	2	1.6	1.3	18.7	18.3	1	1	13.3	12.1
5	363	GM-R	1	1	1	1	5	3	5	5	3	5	4	4	5	5	1.8	1.4	17.4	15.7	2	1	6.9	8.6
6	364	GM-R	1	1	5	1	3	3	3	5	3	5	4	4	5	5	1.8	1.5	16.5	15.0	1	1	9.7	9.9
7	373	GM-R	1	1	7	7	3	3	3	3	5	5	7	4	7	7	2.0	1.7	15.1	15.8	1	1	6.8	10.9
8	375	GM-R	1	1	7	7	3	5	5	5	5	5	7	4	7	3	1.9	1.6	15.7	16.7	1	1	9.3	8.9
9	380	GM-R	1	1	1	1	3	3	5	5	5	5	6	6	4	5	1.8	1.4	15.2	11.8	1	1	6.7	11.6
10	385	GM-R	1	1	7	7	3	3	3	3	3	5	7	7	7	3	1.3	1.1	16.6	16.6	2	1	6.1	15.8
11	386	GM-R	1	1	7	7	3	3	3	5	3	5	7	7	3	3	1.8	1.5	15.5	14.1	1	1	6.8	11.2
12	388	GM-R	-	1	5	5	3	3	5	3	5	5	4	4	7	3	2.0	1.7	15.3	14.7	2	1	6.3	12.8
13	390	GM-R	1	1	7	7	3	3	5	5	5	5	4	4	7	7	2.0	2.0	14.9	18.5	2	1	10.0	17.0
14	408	GM-R	1	1	7	7	3	5	5	5	5	5	7	7	7	3	1.7	1.3	14.2	17.8	2	1	7.0	13.0
Control																								
15	296B	High yield	1	1	5	1	5	5	5	5	3	5	4	4	2	2	1.4	1.0	20.0	19.4	1	2	10.6	14.1
Mean			-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.80	1.40	17.22	15.84	-	-	9.75	12.71
SE ±			-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.04	0.04	0.95	0.73	-	-	1.01	0.87
CV (%)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.04	5.20	9.52	7.96	-	-	17.94	11.85
CD (5%)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.12	0.12	2.77	2.41	-	-	2.96	2.70

Trait number →		22		23		24		25		26		27		28		29		30		31		32	
		Leaf length (cm)		Leaf width (cm)		Panicle length (cm)		Panicle branch length (cm)		Panicle compactness		Panicle shape		Panicle exertion (cm)		Glume coverage (%)		Shattering		Thresholdability%		Grain form	
Serial number	ICSB number	Trait	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	
1	208	DM-R	70.8	57.7	33.8	24.8	9.4	6.1	7.0	38	42	1	1	1	1	1	1	1	1	1	1	1	
2	268	AN-R	72.2	58.3	31.3	28.3	10.7	7.9	10.0	42	25	1	1	1	1	1	1	1	1	1	1	1	
3	311	LB-R	73.0	62.4	23.4	18.8	5.9	4.4	7	7	7	7	3	3	0.3	0.3	67	42	1	1	1	1	
4	329	RU-R	74.7	60.1	29.3	23.7	10.8	7.0	7	7	5	5	3	3	9.7	19.0	33	42	1	1	1	1	
5	363	GM-R	66.0	57.0	28.3	21.0	9.0	5.3	7	7	7	7	3	3	13.3	16.3	25	33	1	1	1	1	
6	364	GM-R	71.3	59.2	8.1	6.6	28.6	21.2	7.8	4.7	7	7	3	3	7.0	19.3	33	25	1	1	1	1	
7	373	GM-R	64.2	64.6	8.4	6.9	27.8	22.9	8.2	5.4	7	7	3	3	11.7	20.0	25	42	1	1	1	1	
8	375	GM-R	69.0	60.4	8.3	7.2	27.9	22.7	7.6	5.2	7	7	3	3	11.0	18.3	25	33	1	1	1	1	
9	380	GM-R	68.8	53.1	7.8	5.7	28.8	22.3	8.8	5.2	5	7	3	3	10.3	27.0	58	58	1	1	1	1	
10	385	GM-R	62.7	60.3	8.6	6.6	27.8	22.4	7.3	5.2	5	7	3	3	12.3	17.7	42	42	1	1	1	1	
11	386	GM-R	64.6	49.6	8.3	5.8	30.1	24.6	8.9	5.8	5	7	3	3	12.7	19.0	33	33	1	1	1	1	
12	388	GM-R	64.7	57.3	8.3	6.3	30.6	24.2	7.6	5.3	5	7	3	3	9.3	22.3	58	50	1	1	1	1	
13	390	GM-R	65.7	60.7	7.6	6.9	30.3	27.8	8.1	6.1	5	5	3	3	13.0	24.3	58	50	1	1	1	1	
14	408	GM-R	60.0	59.9	7.1	6.1	27.2	24.2	7.1	5.6	5	7	3	3	6.7	10.0	33	42	1	1	1	1	
Control																							
15	296B	High yield	65.7	63.8	7.9	6.7	29.7	25.0	7.6	5.6	7	7	3	3	1.0	3.3	25	25	1	1	1	1	
Mean			66.66	57.87	8.11	6.35	28.30	22.86	8.90	5.80	-	-	-	-	8.77	15.37	44	41	-	-	-	-	
SE ±			2.75	2.31	0.32	0.29	1.04	0.78	0.60	0.39	-	-	-	-	0.75	1.04	6.20	5.94	-	-	-	-	
CV (%)			7.14	6.93	6.73	7.99	6.36	5.92	11.69	11.58	-	-	-	-	14.72	11.76	24.34	25.40	-	-	-	-	
CD (5%)			8.05	8.07	0.92	0.87	3.04	2.60	1.76	1.66	-	-	-	-	2.18	2.73	18.17	17.92	-	-	-	-	

Annexure I-3 ... Contd.

Serial number	ICSB number	Trait	33	34	35	36	37	39	40	41	42	43	44	45	46	47
			Grain color Postrainy	1000-grain mass (g) Postrainy	Grain shape- dorsal view Postrainy	Grain shape- profile view Postrainy	Grain germ size Postrainy	Endosperm texture Postrainy	Albumen color Postrainy	Grain lustre Postrainy	Days to seedling emergence Rainy Postrainy	Leaf glossy score Rainy Postrainy	Seedling vigor score Rainy Postrainy	Plant aspect score Rainy Postrainy	Panicle yield (t ha ⁻¹) Rainy Postrainy	Grain yield (t ha ⁻¹) Rainy Postrainy
1	208	DM-R	8	25.09	3	3	5	5	3	1	5	2.3	3.0	2.5	3.3	2.4
2	268	AN-R	8	36.02	3	3	5	3	3	5	6	2.7	2.7	3.0	4.1	3.0
3	311	LB-R	8	35.46	3	3	5	3	3	5	5	2.7	3.0	3.0	2.1	1.5
4	329	RU-R	8	33.77	3	3	5	5	3	5	5	2.7	3.0	3.0	3.5	2.7
5	363	GM-R	3	31.50	3	3	5	5	3	5	6	3.3	4.3	2.0	3.8	2.9
6	364	GM-R	8	30.60	3	3	5	5	3	5	6	3.0	3.7	2.0	3.6	4.1
7	373	GM-R	9	34.64	2	2	5	3	2	5	5	2.7	2.3	2.0	3.4	2.5
8	375	GM-R	9	35.05	3	3	5	3	2	5	6	3.0	3.0	2.0	3.9	3.0
9	380	GM-R	8	35.24	2	2	7	5	3	5	5	3.0	2.3	3.0	4.0	3.1
10	385	GM-R	9	29.12	2	2	5	3	2	5	6	2.7	3.3	2.3	3.3	2.8
11	386	GM-R	9	33.32	3	3	5	3	2	5	6	3.3	3.0	2.3	4.3	3.4
12	388	GM-R	9	29.07	3	3	5	3	2	5	6	3.0	2.3	2.0	3.9	3.0
13	390	GM-R	5	25.62	2	2	5	3	2	5	5	3.0	2.7	1.3	4.1	3.3
14	408	GM-R	9	37.83	3	3	5	5	2	5	5	3.7	2.3	2.0	3.6	2.7
Control																
15	296B	High yield	8	28.61	3	3	7	5	3	1	6	3.0	4.0	1.7	4.7	3.2
Mean			-	31.76	-	-	-	-	-	-	6	2.86	2.92	2.47	3.93	2.94
SE ±			-	1.10	-	-	-	-	-	-	0.31	0.24	0.26	0.21	0.34	0.19
CV (%)			-	5.98	-	-	-	-	-	-	9.63	14.80	15.29	15.06	15.11	17.62
CD (5%)			-	3.13	-	-	-	-	-	-	0.88	0.70	0.74	0.63	0.98	0.85

Serial number	ICSB number	Trait	48		49	50	51	52	53	54	55	56
			Seed set % under high atmospheric temperature in A-line	Summer	Seed set % in A-line under open pollination	Downy mildew infected plants%	Anthrachnose score for leaf	Anthrachnose score for panicle	Leaf blight score	Rust score	Panicle grain mold rating score	Threshed grain mold rating score
1	208	DM-R	0	0	25	14	-	-	-	-	-	-
2	268	AN-R	0	0	25	-	3.9	6.1	-	-	-	-
3	311	LB-R	0	0	30	-	-	-	4	4	-	-
4	329	RU-R	0	0	45	-	-	-	5.6	4.8	-	-
5	363	GM-R	0	0	40	-	-	-	-	-	6.1	5.7
6	364	GM-R	0	0	30	-	-	-	-	-	6.6	5.3
7	373	GM-R	0	0	30	-	-	-	-	-	6.5	5.3
8	375	GM-R	0	0	35	-	-	-	-	-	5.9	5.8
9	380	GM-R	0	0	60	-	-	-	-	-	5.7	4.9
10	385	GM-R	0	0	20	-	-	-	-	-	6.8	5.7
11	386	GM-R	0	0	30	-	-	-	-	-	5.4	4.6
12	388	GM-R	0	0	40	-	-	-	-	-	5.6	5.1
13	390	GM-R	0	0	40	-	-	-	-	-	5.2	5.5
14	408	GM-R	0	0	50	-	-	-	-	-	6.4	5.9
Control												
15	296B	High yield	-	-	-	-	-	-	-	-	-	-
Mean			-	-	-	-	-	-	-	-	-	-
SE ±			-	-	-	-	-	-	-	-	-	-
CV (%)			-	-	-	-	-	-	-	-	-	-
CD (5%)			-	-	-	-	-	-	-	-	-	-

Annexure I-4. Characteristics of disease resistant (medium maturity) sorghum B-lines evaluated during the rainy and post rainy seasons, 2005 at ICRISAT Patancheru.

Trait number		Experiment 14: Characteristics of the rice (cv. Indica) during the rainy and post-rainy seasons, 2002 at ICARDA, ICRAR, and ICRISAT																					
		1		2		3		4		5		6		7		8		9		10			
ICSB number	Trait	Coleoptile color		Fifth leaf sheath color		Leaf midrib color		Days to 50% flowering		Plant height (m) at flowering		Flag leaf: Extension of discoloration of mid rib		Flag leaf: intensity of midrib compared to the blade		Flag leaf: yellow coloration of mid rib		Glume hair color		Lemma: arista formation			
		Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy		
1	202	DM-R	1	1	1	1	2	2	70	76	1.3	0.9	1	5	2	-	1	1	1	1	1		
2	216	DM-R	2	2	3	3	2	2	75	87	0.8	0.6	1	1	2	2	1	1	1	1	1		
3	217	DM-R	2	2	3	3	2	2	72	90	1.1	0.8	1	5	2	2	1	1	1	1	1		
4	218	DM-R	2	2	3	3	2	2	81	89	1.3	0.9	1	1	2	2	1	1	1	1	1		
5	220	DM-R	2	1	3	1	2	2	81	95	1.2	0.8	1	1	2	2	1	1	1	3	1		
6	223	DM-R	2	2	3	3	2	2	80	97	1.2	0.7	1	1	2	-	1	1	1	3	3		
7	224	DM-R	2	2	3	3	2	2	81	97	1.2	0.8	1	1	2	2	1	1	1	5	3		
8	225	DM-R	2	2	3	3	2	2	82	96	1.0	0.7	5	1	-	2	-	1	1	3	3		
9	226	DM-R	2	2	3	3	2	2	79	91	1.1	0.7	1	1	2	2	1	1	1	5	3		
10	227	DM-R	2	2	3	3	2	2	79	90	1.0	0.7	1	1	2	2	1	1	1	5	3		
11	228	DM-R	2	2	3	3	2	2	80	98	1.2	0.8	5	1	-	2	1	1	1	5	3		
12	229	DM-R	2	2	3	3	2	1	81	99	1.2	0.8	1	1	2	2	1	1	1	5	3		
13	230	DM-R	1	2	3	3	2	2	81	86	1.2	0.9	1	5	2	-	1	1	1	1	1		
14	231	DM-R	2	2	1	3	2	2	79	88	1.2	0.8	1	5	2	-	1	1	1	5	3		
15	245	DM-R	2	2	3	3	2	2	81	97	1.1	0.8	1	1	2	2	1	1	1	5	3		
16	249	DM-R	1	1	1	1	2	2	69	90	1.3	0.9	1	1	2	2	1	1	1	5	3		
17	251	DM-R	2	2	3	3	2	1	76	92	1.0	0.7	1	1	2	2	1	1	1	5	3		
18	252	DM-R	2	2	3	3	2	1	73	91	1.0	0.8	1	1	2	2	1	1	1	5	5		
19	253	DM-R	2	1	3	1	2	2	72	89	1.0	0.7	1	1	2	-	1	1	1	5	5		
20	255	DM-R	1	1	1	1	2	1	86	96	1.1	0.8	5	1	-	2	1	1	1	3	5		
21	256	DM-R	2	1	3	1	2	2	79	93	1.3	0.8	1	1	2	2	1	1	1	3	3		
22	260	AN-R	1	1	1	1	2	2	68	73	1.0	0.9	7	7	-	-	1	1	1	1	1		
23	262	AN-R	1	1	1	1	2	2	72	85	1.0	0.7	1	1	2	2	1	1	1	1	1		
24	263	AN-R	1	1	1	1	2	2	71	88	1.2	0.8	1	1	2	2	1	1	1	1	1		
25	265	AN-R	1	1	1	1	2	2	74	91	1.0	0.8	1	1	2	2	1	1	1	1	1		
26	267	AN-R	1	1	1	1	2	2	70	80	1.0	0.7	1	1	2	2	1	1	1	1	1		
27	270	AN-R	1	1	1	1	2	2	70	74	1.2	0.9	1	1	2	2	1	1	1	1	1		
28	271	AN-R	2	2	3	3	2	2	77	87	1.5	1.0	1	1	2	2	1	1	1	1	1		
29	277	AN-R	1	1	1	1	2	2	72	79	1.0	0.7	1	1	2	2	1	1	1	1	1		
30	278	AN-R	1	1	1	1	2	2	71	77	0.9	0.7	1	1	2	2	1	1	1	1	1		
31	279	AN-R	1	1	1	1	2	2	70	77	0.9	0.7	1	1	2	2	1	1	1	1	1		
32	282	AN-R	1	1	1	1	2	1	71	82	1.0	0.8	1	1	2	2	1	1	1	1	1		
33	283	AN-R	1	1	1	1	2	2	72	82	1.0	0.8	1	1	2	2	1	1	1	1	1		
34	284	AN-R	1	1	1	1	2	2	69	80	0.9	0.7	1	1	2	2	1	1	1	1	1		

Trait number →		1		2		3		4		5		6		7		8		9		10	
Serial number	ICSB number	Coleoptile color		Fifth leaf sheath color		Leaf midrib color		Days to 50% flowering		Plant height (m) at flowering		Flag leaf: Extension of midrib discoloration of midrib		Flag leaf: intensity of midrib compared to the blade		Flag leaf: yellow coloration of mid rib		Glume hair color		Lemma: arista formation	
		Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
35	285	AN-R	1	1	1	1	2	1	69	76	0.9	0.8	1	1	2	-	1	1	1	1	1
36	286	AN-R	1	1	1	1	2	2	69	78	0.8	0.7	1	1	2	2	1	1	1	1	1
37	287	AN-R	1	1	1	1	2	2	69	78	0.8	0.7	1	1	2	2	1	1	1	1	1
38	288	AN-R	1	1	1	1	2	2	73	94	1.6	1.3	1	1	2	2	1	1	1	1	1
39	289	AN-R	1	1	1	1	2	2	69	80	1.1	0.9	1	1	2	2	1	1	1	1	1
40	290	AN-R	1	1	1	1	2	2	69	75	0.9	0.7	1	1	2	2	1	1	1	1	1
41	291	AN-R	1	1	3	1	2	1	69	84	1.3	1.0	1	5	2	-	1	1	1	1	1
42	292	AN-R	1	1	1	1	2	2	74	80	1.0	0.7	1	1	2	2	1	1	1	1	1
43	294	AN-R	1	1	1	1	2	2	69	79	1.4	1.0	1	1	2	2	1	1	1	1	1
44	295	AN-R	1	1	1	1	2	2	69	75	1.2	0.8	1	1	2	2	1	1	1	1	1
45	296	LB-R	1	1	3	1	3	2	69	82	1.4	1.1	7	-	-	-	1	1	1	1	1
46	298	LB-R	1	1	1	1	2	2	70	78	1.1	0.8	1	1	2	2	1	1	1	1	1
47	299	LB-R	1	1	1	1	2	2	70	81	1.1	0.8	1	5	2	2	1	1	1	1	1
48	302	LB-R	1	1	3	1	2	2	70	87	1.2	0.9	1	1	2	2	1	1	1	1	1
49	312	LB-R	1	1	1	1	2	2	67	73	1.0	0.9	7	5	-	-	1	1	1	1	1
50	313	LB-R	1	1	1	1	2	2	70	80	0.9	0.7	1	1	2	2	1	1	1	1	1
51	314	LB-R	1	1	1	1	2	2	70	81	0.9	0.7	1	1	2	2	1	1	1	1	1
52	315	LB-R	1	1	1	1	2	2	68	78	0.8	0.7	1	1	2	2	1	1	1	1	1
53	316	LB-R	2	1	1	1	2	2	72	82	0.9	0.7	1	1	2	-	1	1	1	1	1
54	317	LB-R	1	1	1	1	2	2	68	77	0.8	0.7	1	1	2	2	1	1	1	1	1
55	320	LB-R	1	1	1	1	2	2	77	86	1.4	1.0	1	1	2	2	1	1	1	1	1
56	322	LB-R	1	1	1	1	2	2	68	81	1.2	0.9	1	1	2	2	1	1	1	5	3
57	330	RU-R	1	1	1	1	2	2	69	82	1.2	0.9	1	1	2	2	1	1	1	1	1
58	331	RU-R	1	1	1	1	2	2	71	78	1.2	0.8	3	1	-	2	1	1	1	1	1
59	332	RU-R	1	1	1	1	2	2	74	80	1.2	0.9	5	5	-	-	1	1	1	1	1
60	335	RU-R	1	1	1	1	2	2	69	83	1.1	0.7	7	5	2	-	1	1	1	1	1
61	337	RU-R	2	2	3	1	2	2	66	76	0.8	0.6	1	1	2	2	1	1	1	3	3
62	338	RU-R	2	2	3	3	2	2	70	76	0.8	0.7	1	1	2	2	1	1	1	1	1
63	341	RU-R	1	1	1	1	2	2	75	77	1.6	1.0	1	1	2	-	1	1	1	1	1
64	344	RU-R	1	1	1	1	2	2	70	80	1.0	0.8	1	1	2	2	1	1	1	1	1
65	346	RU-R	1	1	1	1	2	2	67	77	0.8	0.7	1	1	2	2	1	1	1	1	1
66	347	RU-R	1	1	1	1	2	2	68	77	0.8	0.7	1	1	2	2	1	1	1	1	1
67	349	RU-R	1	1	1	3	3	3	65	82	1.3	1.0	7	7	-	-	1	1	1	1	1
68	352	GM-R	1	1	1	1	2	2	64	85	1.4	1.2	1	1	2	2	1	1	1	1	1
69	354	GM-R	1	1	1	1	2	2	64	75	1.4	1.0	1	1	2	2	1	1	1	1	1
70	356	GM-R	1	1	1	1	3	3	64	74	1.4	1.1	7	7	1	-	1	1	1	1	1

Trait number →		1		2		3		4		5		6		7		8		9		10		
Serial number	ICSB number	Trait	Coleoptile color		Fifth leaf sheath color		Leaf midrib color		Days to 50% flowering		Plant height (m) at flowering		Flag leaf: Extension of midrib discoloration of midrib		Flag leaf: intensity of green coloration of midrib compared to the blade		Flag leaf: yellow coloration of midrib		Glume hair color		Lemma: arista formation	
			Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
71	357	GM-R	1	1	1	1	3	3	65	74	1.4	1.1	7	7	1	-	1	1	1	1	1	1
72	359	GM-R	1	1	1	1	2	2	63	76	1.0	0.8	1	1	2	2	1	1	1	1	1	1
73	360	GM-R	1	1	1	1	2	2	65	72	1.6	1.1	1	1	2	2	1	1	1	1	1	1
74	365	GM-R	1	1	1	1	2	2	66	75	1.3	1.1	1	1	2	2	1	1	1	1	1	1
75	372	GM-R	1	1	1	1	2	2	61	74	1.3	1.0	1	1	2	2	1	1	1	1	1	1
76	377	GM-R	2	2	1	3	2	2	63	79	1.3	1.0	1	1	2	2	1	1	1	1	1	1
77	387	GM-R	1	1	1	1	3	3	66	77	1.3	1.1	7	-	-	-	1	1	1	1	1	1
78	389	GM-R	1	1	1	1	2	2	67	83	1.5	1.2	1	1	2	2	1	1	1	1	1	1
79	395	GM-R	1	2	1	1	2	2	70	73	1.3	0.9	1	1	2	2	1	1	1	1	1	1
80	397	GM-R	1	1	1	1	2	2	74	83	0.9	0.6	1	1	2	2	1	1	1	1	3	3
81	398	GM-R	1	2	3	3	2	2	72	82	0.8	0.6	1	1	2	2	1	1	1	1	3	3
82	399	GM-R	1	1	1	1	2	2	64	72	1.3	1.0	1	1	2	2	1	1	1	1	1	1
83	407	GM-R	1	1	1	1	2	2	69	92	1.4	1.2	1	1	2	2	1	1	1	1	1	1
Control																						
84	296B	High yield	1	2	1	1	3	2	75	96	1.1	0.8	1	1	2	2	1	1	1	1	5	5
Mean			-	-	-	-	-	-	71	83	1.18	0.86	-	-	-	-	-	-	-	-	-	-
SE ±			-	-	-	-	-	-	1.03	1.04	0.03	0.03	-	-	-	-	-	-	-	-	-	-
CV (%)			-	-	-	-	-	-	2.51	2.18	4.63	5.09	-	-	-	-	-	-	-	-	-	-
CD (5%)			-	-	-	-	-	-	2.89	2.90	0.09	0.08	-	-	-	-	-	-	-	-	-	-

AN- Anthracnose; DM- Downy mildew; LB- Leaf blight; RU- Rust; GM- Grain mold; R- Resistant.

Trait No. 1-41 : Traits stipulated in the DUS-test guidelines (Trait no 38 was not recorded in the current trials).

Trait No. 42-48 : Ancillary traits recorded in the current trials.

Trait No. 49-56 : Monitored traits recorded in various trials conducted earlier at ICRISAT.

Serial number	ICSB number	Trait	11		12		13		14		15		16		17		18		19		20	
			Stigma: anthocyanin coloration		Stigma: yellow coloration		Stigma length		Pedicellate flower length		Length of anther		Dried anther color		Glume color		Plant height (m) at maturity		Stem thickness (mm)		Juicy score	
			Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
1	202	DM-R	1	1	7	5	9	5	5	5	5	5	6	4	2	2	1.8	1.2	20	14.7	1	1
2	216	DM-R	1	1	1	1	5	5	7	5	5	5	4	4	1	2	1.1	0.8	22	17.9	1	1
3	217	DM-R	1	1	5	1	5	5	5	5	3	3	4	4	2	2	1.4	1.0	19	17.9	1	1
4	218	DM-R	1	1	1	1	3	5	5	5	5	3	4	4	4	5	1.5	1.2	20	18.5	1	1
5	220	DM-R	1	1	1	1	9	5	5	5	5	3	4	4	2	5	1.5	1.0	23	19.7	1	1
6	223	DM-R	1	1	1	1	5	5	5	3	5	5	7	4	2	2	1.5	1.0	25	21.5	1	1
7	224	DM-R	1	1	1	1	5	5	5	5	5	5	7	4	2	2	1.4	1.1	23	18.9	1	1
8	225	DM-R	1	1	1	1	5	5	5	5	5	5	4	4	2	2	1.3	0.9	22	17.8	1	1
9	226	DM-R	1	1	1	1	3	5	5	5	5	3	4	4	2	2	1.4	1.0	23	17.7	1	1
10	227	DM-R	1	1	1	1	5	5	5	5	5	5	7	4	2	1	1.3	1.0	21	19.2	1	1
11	228	DM-R	1	1	1	1	5	5	5	5	5	5	7	7	2	2	1.4	1.0	23	21.5	1	2
12	229	DM-R	1	1	1	1	5	5	5	5	3	5	7	4	2	4	1.5	1.2	23	19.7	1	1
13	230	DM-R	1	1	1	1	5	5	5	5	5	5	7	4	2	2	1.5	1.2	19	18.5	1	1
14	231	DM-R	1	1	1	1	9	9	5	5	5	5	7	4	2	1	1.5	1.1	19	18.8	1	2
15	245	DM-R	1	1	1	1	5	5	5	5	5	5	7	4	5	5	1.5	1.1	21	20.7	1	2
16	249	DM-R	1	1	1	1	5	5	5	5	5	5	4	6	4	5	1.6	1.2	17	18.7	2	1
17	251	DM-R	1	1	1	1	5	5	5	5	3	5	4	4	2	2	1.4	1.1	21	19.6	1	1
18	252	DM-R	1	1	5	1	5	5	3	3	3	5	4	4	2	2	1.5	1.1	21	20.3	1	1
19	253	DM-R	1	1	1	1	9	5	5	5	3	5	4	4	2	2	1.3	1.0	20	18.3	2	1
20	255	DM-R	1	1	1	1	5	5	5	5	5	5	7	4	4	5	1.4	1.2	24	19.3	1	1
21	256	DM-R	1	1	1	1	5	5	5	5	5	5	7	4	2	2	1.6	1.1	22	19.3	1	1
22	260	AN-R	1	1	5	1	3	3	5	5	5	5	4	4	6	2	1.4	1.1	17	15.8	1	1
23	262	AN-R	1	1	1	1	3	3	5	5	5	5	6	4	4	7	1.4	1.1	19	22.0	1	2
24	263	AN-R	1	1	5	1	3	5	7	5	7	7	4	6	7	7	1.5	1.2	19	19.5	2	2
25	265	AN-R	1	1	5	1	3	3	5	5	7	5	6	6	2	2	1.3	1.2	20	19.7	1	1
26	267	AN-R	1	1	1	1	3	3	5	5	7	7	6	4	1	1	1.4	1.1	17	20.3	1	1
27	270	AN-R	1	1	5	1	3	3	5	5	5	5	6	6	2	2	1.5	1.2	18	15.4	1	1
28	271	AN-R	1	1	1	1	5	5	5	5	5	5	6	6	4	4	1.9	1.3	19	19.6	1	1
29	277	AN-R	1	1	7	5	3	3	3	3	3	3	4	4	4	2	1.4	1.1	16	17.4	1	1
30	278	AN-R	1	1	7	1	3	3	5	3	3	5	4	4	2	2	1.3	1.1	18	17.3	1	1
31	279	AN-R	1	1	7	1	3	3	7	5	7	5	4	7	2	2	1.1	0.7	17	15.3	1	1
32	282	AN-R	1	1	5	1	5	3	5	5	5	5	4	4	4	4	1.3	1.0	17	18.8	1	1
33	283	AN-R	1	1	5	1	3	5	5	3	5	5	4	4	4	2	1.2	1.0	17	17.5	1	1
34	284	AN-R	1	1	5	1	5	3	5	3	5	5	4	4	4	4	1.2	1.0	16	15.8	1	1

Trait number →		11		12		13		14		15		16		17		18		19		20		
Serial number	ICSB number	Stigma: anthocyanin coloration		Stigma: yellow coloration		Stigma length		Pedicellate flower length		Length of anther		Dried anther color		Glume color		Plant height (m) at maturity		Stem thickness (mm)		Juicy score		
		Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	
35	285	AN-R	1	1	5	1	3	3	3	3	5	5	6	4	4	4	1.3	1.0	14	16.8	1	1
36	286	AN-R	1	1	5	1	5	3	5	3	5	5	4	4	4	4	1.0	0.9	15	17.4	1	1
37	287	AN-R	1	1	5	1	5	3	5	3	5	5	4	4	4	4	1.1	0.9	17	17.9	1	1
38	288	AN-R	1	1	5	1	5	5	7	5	7	5	6	4	4	4	2.0	1.6	16	19.5	1	2
39	289	AN-R	1	1	5	1	3	3	5	5	5	5	4	4	5	2	1.4	1.1	17	18.0	1	1
40	290	AN-R	1	1	5	1	3	3	5	5	5	5	6	4	4	4	1.2	0.9	16	15.5	1	1
41	291	AN-R	1	1	1	1	3	5	5	5	3	5	6	4	5	5	1.6	1.3	16	18.4	1	1
42	292	AN-R	1	1	5	1	3	3	3	3	5	5	6	4	6	2	1.4	1.1	19	15.3	1	1
43	294	AN-R	1	1	7	5	3	3	5	5	5	5	4	4	2	2	1.9	1.4	17	17.3	1	1
44	295	AN-R	1	1	5	5	5	5	5	5	5	5	6	4	2	2	1.4	1.1	17	15.9	1	1
45	296	LB-R	1	1	5	1	3	5	5	5	5	5	4	4	4	5	1.8	1.4	18	16.8	2	1
46	298	LB-R	1	1	5	1	3	3	5	5	5	5	6	4	5	5	1.4	1.1	18	17.2	1	1
47	299	LB-R	1	1	5	1	3	3	5	5	5	5	6	4	2	2	1.4	1.1	17	17.6	1	1
48	302	LB-R	1	1	5	1	5	3	5	5	5	5	6	4	2	2	1.5	1.1	20	17.9	1	1
49	312	LB-R	1	1	7	1	3	3	5	5	5	5	4	4	2	2	1.4	1.2	20	15.4	1	1
50	313	LB-R	1	1	5	1	5	3	5	3	5	5	4	4	4	2	1.2	1.0	16	16.4	1	1
51	314	LB-R	1	1	5	1	5	3	3	3	5	5	6	4	4	2	1.2	1.0	18	15.2	1	1
52	315	LB-R	1	1	5	1	5	3	5	5	5	5	7	4	4	4	1.1	0.9	17	18.0	1	1
53	316	LB-R	1	1	5	1	5	5	5	5	3	5	6	4	4	4	1.2	0.9	18	20.0	1	1
54	317	LB-R	1	1	5	1	5	5	5	3	5	5	4	4	4	4	1.1	0.9	18	17.3	1	1
55	320	LB-R	1	1	1	1	5	5	5	5	7	5	6	6	2	2	1.7	1.4	20	19.1	1	1
56	322	LB-R	1	1	5	1	5	5	5	5	7	5	4	4	2	2	1.5	1.0	19	18.9	2	1
57	330	RU-R	1	1	5	1	5	3	5	3	3	5	4	4	2	2	1.4	1.1	16	14.9	1	1
58	331	RU-R	1	1	5	1	3	3	5	5	5	5	6	6	2	2	1.5	1.2	17	17.9	1	1
59	332	RU-R	1	1	5	1	3	3	5	5	5	5	6	6	2	2	1.6	1.2	16	17.7	1	1
60	335	RU-R	1	1	5	5	9	5	5	5	5	5	6	4	4	5	1.3	1.0	16	16.9	2	2
61	337	RU-R	1	1	7	5	5	3	5	5	5	5	6	4	4	2	1.1	0.9	18	20.2	1	1
62	338	RU-R	1	1	5	1	5	5	5	5	3	5	4	4	5	2	1.2	1.0	21	19.1	1	1
63	341	RU-R	1	1	1	1	5	3	5	5	5	5	6	6	4	2	2.2	1.5	18	16.2	1	1
64	344	RU-R	1	1	5	1	5	5	5	5	5	5	4	4	4	4	1.2	1.1	18	16.0	1	1
65	346	RU-R	1	1	5	5	5	3	5	5	5	5	4	4	4	2	1.1	0.9	16	17.8	1	1
66	347	RU-R	1	1	5	1	5	3	5	5	5	5	6	4	4	2	1.1	0.9	17	15.0	1	1
67	349	RU-R	1	1	5	1	3	3	5	5	5	5	6	4	4	7	1.8	1.4	16	15.6	1	2
68	352	GM-R	1	1	5	1	3	3	5	5	5	5	4	6	5	5	1.9	1.6	15	15.8	2	1
69	354	GM-R	1	1	5	1	3	3	5	5	3	5	4	4	4	5	1.9	1.5	16	15.0	1	1
70	356	GM-R	1	1	5	1	3	3	3	5	5	5	4	4	5	5	1.8	1.4	13	13.8	2	2

Trait number →		11		12		13		14		15		16		17		18		19		20	
Serial number	ICSB number	Stigma: anthocyanin coloration		Stigma: yellow coloration		Stigma length		Pedicellate flower length		Length of anther		Dried anther color		Glume color		Plant height (m) at maturity		Stem thickness (mm)		Juicy score	
		Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
71	357	GM-R	1	1	5	1	5	3	5	5	5	5	4	5	5	1.9	1.5	16	15.3	2	1
72	359	GM-R	1	1	5	5	5	5	5	5	5	7	7	7	2	1.3	1.0	17	14.9	2	2
73	360	GM-R	1	1	5	5	5	3	5	5	5	7	7	7	7	2.0	1.4	20	13.8	1	1
74	365	GM-R	1	1	5	1	3	3	5	5	5	4	4	4	5	1.8	1.5	15	14.9	1	1
75	372	GM-R	1	1	7	5	5	5	5	5	5	7	7	7	7	1.7	1.4	14	12.7	2	1
76	377	GM-R	1	1	7	7	5	5	5	5	5	7	7	7	7	1.7	1.4	17	16.4	1	1
77	387	GM-R	1	1	5	1	5	5	5	5	5	4	7	7	7	1.7	1.5	16	16.0	2	1
78	389	GM-R	1	1	5	5	3	3	5	5	5	7	4	7	7	1.9	1.6	16	16.3	2	1
79	395	GM-R	1	1	5	1	3	3	5	5	5	7	7	5	7	1.5	1.2	19	16.7	2	1
80	397	GM-R	1	1	5	1	3	3	5	5	5	4	4	1	1	1.5	1.0	20	19.5	1	1
81	398	GM-R	1	1	7	1	3	5	5	5	5	7	7	1	1	1.3	0.9	22	17.6	1	1
82	399	GM-R	1	1	5	1	3	3	5	5	5	4	4	4	5	1.8	1.3	15	15.0	1	1
83	407	GM-R	1	1	7	7	3	3	5	3	5	7	4	1	2	1.9	1.6	18	21.7	2	1
Control																					
84	296B	High yield	1	1	1	1	5	5	5	3	3	4	4	1	1	1.4	1.0	21	18.5	1	2
Mean			-	-	-	-	-	-	-	-	-	-	-	-	-	1.51	1.17	18	17.48	-	-
SE ±			-	-	-	-	-	-	-	-	-	-	-	-	-	0.04	0.03	1.00	0.85	-	-
CV (%)			-	-	-	-	-	-	-	-	-	-	-	-	-	4.14	4.43	9.49	8.38	-	-
CD (5%)			-	-	-	-	-	-	-	-	-	-	-	-	-	0.10	0.09	2.80	2.61	-	-

Serial number	ICSB number	Trait	21		22		23		24		25		26		27		28		29		30		31	
			Rainy	Postrainy	Rainy	Postrainy	Leaf length (cm)	Leaf width (cm)	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
1	202	DM-R	10.0	15.2	69.6	60.2	7.6	5.8	29.4	22.6	8.1	5.2	5	5	3	3	17.7	11.7	25.0	25.0	1	1	1	1
2	216	DM-R	11.4	14.4	62.9	58.3	7.8	6.3	29.0	22.1	7.3	5.0	5	7	3	3	0.0	5.0	50.0	25.0	1	1	1	1
3	217	DM-R	10.3	11.6	63.8	55.7	8.7	6.2	25.3	17.9	5.7	4.0	7	7	3	3	3.3	7.7	25.0	25.0	1	1	1	1
4	218	DM-R	12.2	13.1	69.2	59.2	7.9	6.8	25.1	22.8	6.8	5.1	5	7	3	3	0.0	2.3	50.0	25.0	1	1	1	1
5	220	DM-R	11.1	16.4	73.4	56.9	8.7	6.7	33.0	24.2	8.6	6.1	5	7	3	3	0.0	0.0	33.3	25.0	1	1	1	1
6	223	DM-R	11.9	17.7	67.9	60.4	8.2	7.6	33.7	28.7	8.8	7.4	5	5	3	3	0.0	0.0	50.0	25.0	1	1	1	1
7	224	DM-R	12.0	15.6	73.0	60.4	8.9	6.6	35.0	23.2	9.2	6.2	5	5	3	3	0.0	4.3	25.0	25.0	1	1	1	1
8	225	DM-R	14.7	15.1	71.9	63.7	8.0	6.6	32.3	26.8	6.8	5.8	7	7	3	3	0.0	3.0	25.0	25.0	1	1	1	1
9	226	DM-R	10.6	15.8	65.7	61.7	8.9	6.8	34.9	25.7	8.1	6.1	5	5	3	3	0.0	5.7	25.0	25.0	1	1	1	1
10	227	DM-R	13.4	17.1	70.7	60.9	8.4	6.7	33.9	25.2	8.3	6.4	5	5	3	3	0.0	3.3	25.0	25.0	1	1	1	1
11	228	DM-R	13.0	15.2	72.7	58.9	9.4	7.1	32.3	24.2	7.6	6.1	5	5	3	3	0.0	1.3	50.0	25.0	1	1	1	1
12	229	DM-R	9.3	14.2	67.2	64.9	8.3	6.8	34.4	25.0	7.1	6.3	7	5	3	3	1.3	9.0	33.3	25.0	-	1	1	-
13	230	DM-R	10.3	14.8	68.3	59.1	7.7	6.2	34.2	26.9	6.9	5.7	5	7	3	3	0.0	6.0	25.0	25.0	1	1	1	1
14	231	DM-R	10.2	17.0	65.2	63.9	8.2	7.0	32.8	26.9	7.6	5.9	7	7	3	3	0.0	5.7	25.0	25.0	1	1	1	1
15	245	DM-R	11.9	13.7	79.2	64.9	8.4	6.7	35.8	25.2	8.8	6.8	5	5	3	3	4.7	9.0	25.0	33.3	1	1	1	1
16	249	DM-R	6.7	12.6	69.9	67.2	7.3	6.8	34.2	27.0	10.0	5.7	5	5	3	3	2.3	2.0	50.0	33.3	1	1	1	1
17	251	DM-R	11.3	13.8	68.2	64.0	7.9	6.8	30.9	25.6	6.8	6.9	5	5	3	3	8.0	9.7	25.0	25.0	1	1	1	1
18	252	DM-R	14.3	16.2	72.0	64.1	8.4	6.8	31.9	26.2	8.2	6.2	5	5	3	3	11.0	10.7	33.3	25.0	1	1	1	1
19	253	DM-R	10.8	18.9	69.6	64.2	8.0	6.3	30.0	25.0	7.6	5.3	5	5	3	3	4.0	9.7	25.0	25.0	1	1	1	1
20	255	DM-R	13.2	17.9	74.4	62.2	8.4	6.3	30.1	24.1	7.7	7.0	5	7	3	3	3.3	8.0	41.7	25.0	1	1	1	1
21	256	DM-R	11.6	15.1	70.2	59.0	8.7	6.7	36.0	26.7	8.9	6.6	5	7	3	3	0.0	3.3	25.0	25.0	1	1	1	1
22	260	AN-R	5.6	13.7	74.7	61.4	8.2	6.1	28.6	18.7	7.1	4.4	7	7	3	3	9.0	10.3	25.0	50.0	1	1	1	1
23	262	AN-R	12.1	12.6	72.2	60.1	7.4	6.7	29.7	23.4	8.3	5.1	7	7	3	3	7.3	10.0	41.7	33.3	1	1	1	1
24	263	AN-R	11.0	12.8	69.7	61.8	8.1	6.4	28.6	22.1	7.4	4.9	5	7	3	3	3.3	13.0	50.0	50.0	1	1	1	1
25	265	AN-R	12.4	12.1	68.2	61.8	7.9	6.3	27.2	21.4	7.8	5.2	5	7	3	3	11.3	15.3	58.3	50.0	1	1	1	1
26	267	AN-R	8.7	11.3	65.9	63.0	7.2	6.1	29.4	24.2	7.6	6.8	5	5	3	3	8.3	9.0	33.3	41.7	1	1	1	1
27	270	AN-R	11.4	8.7	69.4	59.3	7.9	5.9	32.8	25.1	10.1	6.2	7	7	3	3	6.0	15.0	33.3	33.3	1	1	1	1
28	271	AN-R	17.6	16.8	68.0	58.4	7.3	6.8	29.2	27.6	11.9	10.1	5	5	3	3	8.0	12.3	25.0	25.0	1	1	1	1
29	277	AN-R	15.3	14.9	71.7	66.9	7.6	6.7	31.6	27.0	8.6	8.4	5	5	3	3	12.7	18.0	33.3	25.0	1	1	1	1
30	278	AN-R	7.7	17.0	64.7	64.9	8.2	7.1	31.0	26.4	11.2	8.9	5	5	3	3	8.3	17.3	33.3	33.3	1	1	1	1
31	279	AN-R	16.0	16.3	69.7	58.9	8.2	7.1	25.6	18.6	6.7	4.4	7	7	3	3	0.0	0.0	33.3	33.3	1	1	1	1
32	282	AN-R	14.7	13.3	70.6	66.6	8.4	7.0	26.3	22.2	6.8	6.1	7	7	3	3	2.7	3.0	25.0	25.0	1	1	1	1
33	283	AN-R	14.2	16.4	77.4	62.7	8.3	7.2	27.7	23.6	6.8	6.4	7	7	3	3	0.0	0.0	25.0	25.0	1	1	1	1
34	284	AN-R	13.1	17.1	72.9	60.4	7.8	6.1	27.6	20.1	6.7	6.6	7	7	3	3	1.7	9.3	25.0	25.0	1	1	1	1

Serial number	ICSB number	Trait	21		22		23		24		25		26		27		28		29		30		31	
			Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
35	285	AN-R	16.3	16.8	68.7	61.8	7.7	6.7	27.3	22.2	6.5	7.0	7	7	3	3	8.0	6.3	25.0	25.0	1	1	1	1
36	286	AN-R	14.8	17.8	75.2	61.2	7.8	6.3	26.7	20.4	6.8	6.1	7	7	3	3	3.0	3.3	25.0	25.0	1	1	1	1
37	287	AN-R	14.8	14.6	70.3	61.4	8.0	6.3	27.0	20.1	8.0	5.6	7	7	3	3	1.7	4.0	25.0	25.0	1	1	1	1
38	288	AN-R	10.0	10.0	66.3	51.2	8.1	6.8	26.7	20.6	8.3	7.2	7	7	3	3	14.7	15.3	58.3	58.3	1	1	1	1
39	289	AN-R	14.1	14.0	71.4	60.7	7.9	6.1	26.9	20.8	6.5	4.8	7	7	3	3	13.0	10.7	25.0	25.0	1	1	1	1
40	290	AN-R	10.0	16.1	70.1	63.8	8.4	7.2	26.8	20.4	6.3	5.6	7	7	3	3	4.3	7.0	25.0	25.0	1	1	1	1
41	291	AN-R	15.4	14.7	67.4	64.1	7.7	6.1	29.1	23.7	8.0	5.6	5	5	3	3	8.0	11.7	33.3	25.0	1	1	1	1
42	292	AN-R	11.7	16.4	76.3	66.8	8.4	6.3	35.0	28.6	10.7	9.0	5	5	3	3	10.7	16.3	25.0	25.0	1	1	1	1
43	294	AN-R	7.7	16.6	69.3	63.6	8.6	6.9	31.8	28.3	10.9	8.2	5	5	3	3	20.7	22.3	33.3	25.0	1	1	1	1
44	295	AN-R	10.9	18.2	77.4	59.7	7.9	5.9	29.1	21.1	9.0	5.6	5	5	3	3	0.3	3.3	50.0	33.3	1	1	1	1
45	296	LB-R	7.9	13.3	73.2	70.0	8.3	6.9	32.0	25.0	8.7	6.3	5	5	3	3	6.3	7.0	25.0	25.0	1	1	1	1
46	298	LB-R	11.7	11.2	64.6	57.0	7.9	6.2	28.4	23.1	8.2	5.2	7	7	3	3	7.3	9.0	25.0	41.7	1	1	1	1
47	299	LB-R	11.2	15.1	68.3	65.0	8.0	6.1	27.1	21.6	9.6	6.0	5	7	3	3	2.7	8.3	41.7	50.0	1	1	1	1
48	302	LB-R	10.1	13.7	75.9	64.8	9.2	6.9	30.1	25.9	8.0	6.8	5	5	3	3	2.0	8.3	33.3	25.0	1	1	1	1
49	312	LB-R	7.1	14.7	70.8	65.0	7.9	6.3	29.4	23.1	7.4	5.7	7	7	3	3	5.7	6.7	33.3	50.0	1	1	1	1
50	313	LB-R	16.3	17.6	75.2	60.1	7.8	6.6	25.2	19.6	6.2	5.2	7	7	3	3	4.7	5.0	25.0	25.0	1	1	1	1
51	314	LB-R	11.4	15.1	72.6	60.8	8.3	6.4	27.4	20.3	6.9	4.7	7	7	3	3	1.7	5.3	25.0	25.0	1	1	1	1
52	315	LB-R	16.1	16.2	78.7	64.2	8.3	6.7	27.9	20.4	6.4	5.8	7	7	3	3	3.0	5.7	25.0	33.3	1	1	1	1
53	316	LB-R	15.2	12.2	77.1	62.8	7.8	7.1	28.4	22.7	7.3	5.8	7	5	3	3	1.0	2.7	33.3	25.0	1	1	1	1
54	317	LB-R	15.6	16.8	70.3	62.9	8.1	6.2	28.0	21.1	6.1	6.4	7	7	3	3	3.0	4.7	25.0	25.0	1	1	1	1
55	320	LB-R	17.9	18.6	74.1	60.7	8.1	6.9	25.9	23.4	7.8	4.8	5	7	3	3	8.7	14.3	25.0	25.0	1	1	1	1
56	322	LB-R	8.6	15.2	66.7	66.2	7.7	6.7	24.7	18.9	6.9	5.4	5	5	3	3	7.7	1.3	58.3	41.7	1	1	1	1
57	330	RU-R	14.3	18.7	66.1	59.1	8.0	6.6	26.6	19.4	7.6	5.2	5	5	3	3	4.3	9.3	41.7	33.3	1	1	1	1
58	331	RU-R	14.6	15.0	60.9	56.9	7.3	5.9	22.1	22.1	7.8	6.9	5	5	3	3	10.7	11.7	25.0	25.0	1	1	1	1
59	332	RU-R	16.3	13.6	65.9	60.8	7.4	6.3	26.6	23.0	9.3	7.2	5	5	3	3	10.3	15.0	41.7	50.0	1	1	1	1
60	335	RU-R	8.2	12.0	70.8	64.4	7.7	6.7	29.1	23.8	7.4	5.3	5	7	3	3	0.0	3.7	58.3	41.7	1	1	1	1
61	337	RU-R	11.1	13.7	70.1	61.2	8.2	7.3	27.4	24.9	8.0	7.9	3	3	5	5	4.3	7.0	50.0	58.3	1	1	1	1
62	338	RU-R	12.2	13.4	78.9	59.1	7.6	5.9	34.8	26.2	9.6	8.2	3	5	3	3	4.3	2.0	33.3	33.3	1	1	1	1
63	341	RU-R	14.0	17.1	78.9	64.6	8.3	7.4	33.2	27.7	10.9	10.2	5	5	3	3	17.0	23.7	33.3	33.3	1	1	1	1
64	344	RU-R	14.1	14.8	71.3	63.7	7.9	6.2	25.9	22.0	6.8	7.8	7	7	3	3	4.7	4.7	25.0	25.0	1	1	1	1
65	346	RU-R	19.0	17.4	69.9	62.9	8.3	6.6	27.7	22.0	6.8	5.9	7	7	3	3	1.3	5.0	25.0	25.0	1	1	1	1
66	347	RU-R	14.3	17.6	74.1	64.0	8.0	6.6	27.8	20.1	7.2	5.7	7	7	3	3	2.7	8.7	25.0	25.0	1	1	1	1
67	349	RU-R	14.4	16.9	67.6	60.1	7.9	6.1	31.0	23.8	8.9	6.2	5	7	3	3	19.0	14.0	41.7	33.3	1	1	1	1
68	352	GM-R	6.7	11.7	64.3	62.7	7.2	6.0	29.9	24.1	8.4	7.0	5	7	3	3	22.0	21.7	50.0	33.3	1	1	1	1
69	354	GM-R	10.0	11.1	65.4	59.2	8.2	6.0	31.1	20.8	8.9	5.2	5	7	3	3	19.3	25.7	58.3	41.7	1	1	1	1
70	356	GM-R	10.7	11.1	63.0	54.4	7.7	5.6	26.4	21.8	7.7	5.6	5	7	3	3	11.3	14.7	50.0	50.0	1	1	1	1

Trait number →		21		22		23		24		25		26		27		28		29		30		31		
Serial number	ICSB number	Trait	Brix reading (%)		Leaf length (cm)		Leaf width (cm)		Panicle length (cm)		Panicle branch length (cm)		Panicle compactness		Panicle shape		Panicle exertion (cm)		Glume coverage (%)		Shattering		Threshability%	
			Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
71	357	GM-R	7.6	10.2	66.7	54.8	7.8	6.2	28.7	23.7	7.6	6.2	5	7	3	3	8.7	16.3	41.7	33.3	1	1	1	1
72	359	GM-R	11.3	11.3	67.8	60.8	8.4	6.1	30.1	21.6	5.5	3.7	7	7	3	3	0.0	6.0	50.0	50.0	1	1	1	1
73	360	GM-R	17.7	12.9	76.4	58.7	9.2	6.6	32.7	22.9	8.4	5.1	7	7	3	3	11.0	13.3	50.0	58.3	1	1	1	1
74	365	GM-R	8.4	11.1	66.9	59.9	8.2	6.6	31.8	21.8	8.8	5.9	5	7	3	3	10.0	20.3	33.3	25.0	1	1	1	1
75	372	GM-R	10.8	12.9	62.6	57.1	7.8	6.1	25.7	17.4	5.9	4.1	7	7	3	3	15.3	22.0	41.7	50.0	1	1	1	1
76	377	GM-R	5.0	14.1	69.6	61.1	7.7	6.7	29.8	25.1	9.3	6.2	5	7	3	3	9.0	16.3	50.0	41.7	1	1	1	1
77	387	GM-R	5.4	12.9	70.1	62.3	8.1	6.6	30.7	23.6	9.8	7.3	5	7	3	3	12.7	19.0	50.0	41.7	1	1	1	1
78	389	GM-R	10.1	16.9	63.9	59.0	7.9	6.9	26.9	23.1	6.8	5.6	5	7	3	3	17.3	22.7	41.7	41.7	1	1	1	1
79	395	GM-R	8.6	12.1	65.1	57.6	8.3	6.8	28.6	20.8	8.7	5.4	5	7	3	3	2.7	12.0	41.7	33.3	1	1	1	1
80	397	GM-R	12.8	14.7	68.8	67.0	8.4	7.3	29.0	25.2	12.3	8.0	5	7	3	3	28.3	22.0	33.3	33.3	1	1	1	1
81	398	GM-R	13.9	14.8	66.1	60.9	9.1	6.9	30.7	25.7	9.3	7.3	5	5	3	3	14.3	7.7	41.7	25.0	1	1	1	1
82	399	GM-R	10.1	10.7	68.2	57.3	7.7	5.9	27.9	20.6	9.1	6.0	5	5	3	3	14.3	17.7	41.7	50.0	1	1	1	1
83	407	GM-R	9.1	14.3	59.8	57.9	8.2	7.0	26.7	24.1	6.9	6.2	5	7	3	3	16.3	8.0	41.7	33.3	1	1	1	1
Control																								
84	296B	High yield	14.9	15.6	72.0	60.7	8.0	6.4	31.1	23.3	7.6	5.1	5	7	3	3	1.0	3.0	33.3	25.0	1	1	1	1
Mean			11.87	14.56	69.62	61.25	8.04	6.51	29.29	23.21	8.08	6.20	-	-	-	-	6.71	9.76	37.59	33.33	-	-	-	-
SE ±			1.76	1.54	2.81	2.04	0.35	0.29	1.07	1.14	0.68	0.61	-	-	-	-	0.70	1.00	5.38	4.82	-	-	-	-
CV (%)			25.73	18.32	6.98	5.77	7.51	7.78	6.30	8.54	14.59	16.93	-	-	-	-	18.11	17.77	24.78	25.07	-	-	-	-
CD (5%)			4.96	4.69	7.85	6.85	0.98	0.90	2.98	3.11	1.91	1.83	-	-	-	-	1.96	2.40	15.13	14.34	-	-	-	-

Serial number		Trait		Trait number →																													
				Grain form		Grain color		1000-grain mass (g)		Grain shape-dorsal view		Grain shape-profile view		Grain germ size		Endosperm texture		Albumen color		Grain lustre		Days to seedling emergence		Leaf glossy score		Seedling vigor score		Plant aspect score		Panicle yield (t ha ⁻¹)		Grain yield (t ha ⁻¹)	
Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy				
1	202	DM-R	1	1	8	28.54	3	3	3	3	7	3	3	3	1	6	6	3.0	2.7	3.0	1.3	2.3	2.7	5.2	3.5	4.2	2.8						
2	216	DM-R	1	1	8	23.44	3	3	3	3	5	3	3	3	5	6	8	3.3	2.7	4.3	4.0	2.3	1.3	3.4	3.8	2.2	2.9						
3	217	DM-R	1	1	8	29.28	3	3	3	3	7	3	3	3	1	6	8	3.0	3.0	4.0	3.0	2.7	2.3	2.6	3.0	1.8	2.4						
4	218	DM-R	1	1	8	25.17	3	3	3	3	5	3	3	3	1	7	7	3.3	3.0	3.3	3.0	2.7	2.0	2.7	3.3	1.5	2.2						
5	220	DM-R	1	1	8	25.01	3	3	3	3	5	3	3	3	1	6	8	3.0	3.0	4.0	3.3	2.0	1.3	4.5	4.3	2.7	3.4						
6	223	DM-R	1	1	8	26.91	3	3	3	3	7	5	3	3	1	7	8	3.3	2.7	4.3	4.3	2.3	1.0	4.1	4.6	2.3	2.7						
7	224	DM-R	1	1	8	30.78	3	3	3	3	7	5	3	3	1	6	8	3.3	3.0	3.3	3.0	1.5	1.0	4.6	4.4	2.5	2.9						
8	225	DM-R	1	1	8	27.96	3	3	3	3	5	5	3	1	7	8	2.7	2.3	3.7	3.3	2.3	1.0	3.5	4.1	1.6	2.6							
9	226	DM-R	1	1	8	33.88	3	3	3	3	5	5	3	1	6	8	3.3	2.7	3.0	3.0	1.7	1.7	4.9	3.1	3.3	2.1							
10	227	DM-R	1	1	8	33.85	3	3	3	3	5	3	3	1	6	8	3.3	3.0	3.0	2.3	2.3	1.3	4.4	4.0	2.8	2.8							
11	228	DM-R	1	1	8	29.34	3	3	3	3	5	5	3	1	6	8	3.3	3.0	2.7	3.3	2.0	1.0	3.3	4.1	1.7	2.7							
12	229	DM-R	1	-	8	30.05	3	3	3	3	5	3	3	5	6	7	2.7	3.3	2.7	3.0	2.0	1.0	3.8	4.6	2.6	3.5							
13	230	DM-R	1	1	8	31.11	3	3	3	3	5	5	3	7	7	7	3.3	3.0	3.0	2.3	1.7	2.0	4.6	3.7	2.9	2.3							
14	231	DM-R	1	1	8	28.06	3	3	3	3	5	3	3	1	6	8	3.0	2.7	3.0	3.0	1.7	1.3	5.7	4.5	3.3	3.0							
15	245	DM-R	1	1	8	29.08	3	3	3	3	5	5	3	5	6	8	3.0	3.0	3.0	2.7	1.7	1.0	4.3	4.9	2.9	3.5							
16	249	DM-R	1	1	3	30.95	3	3	3	3	7	3	3	7	5	7	3.0	3.0	2.3	2.0	2.0	1.0	4.4	5.2	3.1	3.8							
17	251	DM-R	1	1	8	33.09	3	3	3	3	5	5	3	1	6	7	3.0	3.0	3.0	2.3	1.7	1.0	4.2	5.2	3.0	3.7							
18	252	DM-R	1	1	8	30.64	3	3	3	3	5	5	3	5	6	7	3.0	3.3	3.3	2.7	1.7	1.3	4.2	4.0	2.9	3.1							
19	253	DM-R	1	1	8	30.11	3	3	3	3	5	5	3	1	6	7	2.7	3.0	2.7	2.3	2.0	2.0	4.0	3.4	2.5	2.5							
20	255	DM-R	1	1	8	28.61	3	3	3	3	3	5	3	1	6	7	3.0	3.0	2.7	3.0	2.3	1.7	2.6	3.4	1.4	2.5							
21	256	DM-R	1	1	8	33.48	3	3	3	3	5	5	3	1	6	7	3.0	2.7	3.3	2.3	1.3	1.0	5.3	3.3	3.7	2.3							
22	260	AN-R	1	1	8	25.00	3	3	3	3	5	3	3	1	5	6	2.7	3.0	2.3	1.7	2.0	2.7	4.1	2.9	3.0	2.2							
23	262	AN-R	1	1	8	31.29	3	3	3	3	5	3	3	1	5	7	3.0	2.7	2.3	1.3	1.5	1.7	3.7	4.0	2.7	3.1							
24	263	AN-R	1	1	8	32.99	3	3	3	3	7	3	3	5	5	6	3.0	3.0	2.3	1.3	2.0	2.0	4.2	3.7	3.0	2.8							
25	265	AN-R	1	1	1	21.00	2	2	5	5	3	3	3	5	5	7	3.0	2.3	3.0	2.0	2.3	2.3	3.2	3.3	2.5	2.6							
26	267	AN-R	1	1	1	32.76	3	3	3	3	7	3	3	7	5	7	3.0	2.7	2.0	1.7	2.3	2.0	4.4	4.4	3.5	3.5							
27	270	AN-R	1	1	1	30.64	3	3	3	3	7	3	3	7	5	7	3.0	3.0	2.7	2.3	2.7	2.0	3.3	3.5	2.5	2.9							
28	271	AN-R	1	1	8	33.85	3	3	3	3	5	3	3	7	6	7	3.0	2.3	3.0	2.7	2.7	2.0	3.7	3.6	2.8	2.8							
29	277	AN-R	1	1	1	30.33	3	3	3	3	5	3	3	7	5	7	3.0	3.3	2.0	2.3	2.3	1.7	3.1	3.8	2.3	2.8							
30	278	AN-R	1	1	3	26.89	3	3	3	3	7	3	3	7	6	7	3.0	3.0	3.0	2.0	2.7	2.0	3.5	3.8	2.8	3.2							
31	279	AN-R	1	1	1	33.10	3	3	3	3	7	3	3	5	5	7	3.0	2.7	2.7	2.0	2.7	2.3	1.9	3.1	1.3	2.2							
32	282	AN-R	1	1	1	30.57	3	3	3	3	7	3	3	5	6	8	3.0	2.7	3.7	4.0	1.7	2.0	3.4	3.4	2.4	2.6							
33	283	AN-R	1	1	8	26.59	3	3	3	3	5	3	3	1	5	7	2.7	2.3	2.0	2.0	1.7	2.0	3.3	4.0	2.5	3.1							
34	284	AN-R	1	1	1	34.02	3	3	3	3	7	5	3	7	5	7	3.0	2.7	3.0	2.3	2.0	2.0	3.5	3.7	2.6	3.0							

Trait number →		32		33	34	35	36	37	39	40	41	42	43	44	45	46	47						
Serial number	ICSB number	Trait	Grain form		Grain color	1000-grain mass (g)	Grain shape-dorsal view		Grain germ size	Endosperm texture	Albumen color	Days to seedling emergence		Leaf glossy score		Seedling vigor score		Plant aspect score		Panicle yield (t ha ⁻¹)		Grain yield (t ha ⁻¹)	
			Rainy	Postrainy			Postrainy	Postrainy				Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
35	285	AN-R	1	1	1	33.48	3	3	5	3	5	5	7	3.0	2.7	2.7	2.3	2.0	2.0	3.2	3.9	2.4	3.2
36	286	AN-R	1	1	1	25.76	2	2	5	5	3	5	6	7	3.3	2.3	3.0	2.0	1.7	2.0	3.0	3.4	2.1
37	287	AN-R	1	1	1	23.71	3	3	5	5	3	5	5	7	3.0	2.0	2.3	2.0	2.7	2.3	2.8	3.5	2.0
38	288	AN-R	1	1	8	28.56	3	3	5	3	3	1	5	6	2.7	2.3	2.3	1.0	2.7	2.0	3.3	4.2	2.5
39	289	AN-R	1	1	8	21.28	3	3	5	3	3	1	5	6	2.3	2.7	2.0	1.3	1.7	2.7	3.1	3.1	2.2
40	290	AN-R	1	1	1	30.45	3	3	5	3	3	1	5	7	2.7	2.0	2.7	1.7	1.7	2.7	3.9	3.3	2.9
41	291	AN-R	1	1	1	34.28	2	2	5	5	3	5	5	7	2.7	2.3	2.7	2.7	2.0	1.3	3.2	5.0	2.3
42	292	AN-R	1	1	3	29.28	3	3	5	5	3	7	6	7	3.0	3.0	3.0	2.7	2.0	2.0	3.9	4.0	3.0
43	294	AN-R	1	1	3	34.09	3	3	5	3	3	7	6	7	3.0	2.7	2.3	2.7	2.0	1.3	4.1	4.7	3.3
44	295	AN-R	1	1	1	40.62	3	3	5	5	3	5	6	7	3.0	3.0	3.0	2.0	2.3	2.0	4.5	4.2	3.3
45	296	LB-R	1	1	3	35.15	3	3	5	5	3	5	5	7	3.0	3.0	2.3	2.0	2.0	1.7	5.0	4.7	3.7
46	298	LB-R	1	1	8	25.41	3	3	7	5	3	1	5	7	2.7	2.3	2.3	2.0	2.3	2.0	3.2	3.5	2.3
47	299	LB-R	1	1	1	28.25	3	3	5	3	3	5	5	7	3.0	2.7	2.7	2.0	3.0	1.7	3.5	4.6	2.4
48	302	LB-R	1	1	1	34.08	3	3	5	5	3	5	5	7	3.0	3.0	2.0	2.3	2.0	1.7	3.7	5.1	2.8
49	312	LB-R	1	1	8	24.81	3	3	7	3	3	5	5	7	3.0	2.7	2.3	1.7	2.0	2.0	3.6	2.9	2.7
50	313	LB-R	1	1	1	26.65	2	2	5	3	3	5	5	6	2.7	3.0	2.0	2.0	2.0	2.0	3.3	3.5	2.4
51	314	LB-R	1	1	1	26.28	3	3	5	5	3	5	5	7	3.0	2.7	2.3	2.0	2.0	2.3	3.8	2.9	2.8
52	315	LB-R	1	1	8	24.14	3	3	5	3	3	5	5	6	2.7	2.7	2.3	1.7	1.7	2.0	3.0	2.6	2.2
53	316	LB-R	1	1	8	29.90	3	3	7	3	3	5	6	9	3.0	2.5	3.7	5.0	1.3	1.7	7.0	3.5	3.3
54	317	LB-R	1	1	8	31.95	3	3	7	3	3	5	5	7	2.7	3.0	3.0	2.3	1.7	2.0	3.4	3.5	2.5
55	320	LB-R	1	1	8	35.01	3	3	5	5	3	1	6	7	3.0	3.0	3.0	2.7	2.3	2.0	3.8	3.7	2.7
56	322	LB-R	1	1	8	30.39	3	3	5	5	3	1	5	7	3.3	3.0	2.7	1.7	2.7	2.0	3.4	4.0	2.4
57	330	RU-R	1	1	3	23.74	3	3	5	3	3	7	5	7	3.0	3.0	2.3	2.0	2.3	2.0	3.3	3.4	2.7
58	331	RU-R	1	1	8	37.77	3	3	7	5	3	1	5	7	2.7	2.3	3.0	2.0	2.7	2.0	3.5	3.3	2.6
59	332	RU-R	1	1	8	31.89	3	3	5	7	3	5	5	7	3.0	2.7	3.0	3.0	2.7	1.7	3.2	4.9	2.3
60	335	RU-R	1	1	8	28.68	3	3	7	5	3	1	5	7	3.0	2.3	2.7	2.3	2.7	1.7	3.8	3.7	2.7
61	337	RU-R	1	1	8	20.54	3	3	5	3	3	1	6	8	3.0	3.0	4.3	3.7	3.0	2.7	4.2	3.1	3.1
62	338	RU-R	1	1	8	31.59	3	3	7	3	3	5	6	7	3.0	3.0	3.7	3.3	2.3	3.0	3.5	2.0	2.7
63	341	RU-R	1	1	3	35.66	3	3	5	3	3	7	5	7	2.7	2.7	2.7	1.7	2.0	1.3	4.9	5.2	3.8
64	344	RU-R	1	1	1	25.11	2	2	5	3	3	5	5	7	2.7	3.0	2.3	2.0	2.0	2.0	3.2	4.1	2.3
65	346	RU-R	1	1	1	25.12	3	3	7	3	3	5	5	7	3.0	2.7	3.0	2.0	2.3	1.7	3.5	3.7	2.4
66	347	RU-R	1	1	8	28.09	3	3	5	3	3	5	5	7	2.3	2.3	3.0	2.0	2.0	2.3	2.9	3.3	2.2
67	349	RU-R	1	1	8	24.95	3	3	5	3	3	1	6	7	3.0	3.7	3.0	3.0	3.0	2.3	2.8	2.8	1.8
68	352	GM-R	1	1	3	29.46	3	3	5	3	3	7	6	7	3.0	4.0	3.3	3.0	2.3	1.7	3.9	4.2	3.4
69	354	GM-R	1	1	1	34.85	2	2	5	3	3	5	6	7	3.0	3.3	3.0	2.3	2.7	2.0	3.1	4.2	2.5
70	356	GM-R	1	1	1	33.76	3	3	5	5	3	5	6	7	3.0	3.0	2.7	2.3	3.0	2.0	3.2	3.3	2.6

Serial number	ICSB number	Trait	32		33	34	35	36	37	39	40	41	42		43		44		45		46		47	
			Rainy	Postrainy	Grain color	1000-grain mass (g)	Grain shape-dorsal view	Grain shape-profile view	Grain germ size	Endosperm texture	Albumen color	Grain lustre	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
71	357	GM-R	1	1	1	33.26	3	3	5	3	3	5	6	7	3.0	3.3	3.0	2.0	2.3	2.0	3.2	4.2	2.4	3.2
72	359	GM-R	1	1	9	33.13	3	3	7	5	4	1	6	7	3.3	3.0	3.0	2.7	2.7	2.7	3.6	2.8	2.6	1.8
73	360	GM-R	1	1	5	32.83	2	2	5	5	4	5	5	7	3.3	2.7	2.0	1.7	3.0	3.0	2.7	1.8	1.6	1.0
74	365	GM-R	1	1	1	31.86	3	3	5	3	3	7	6	7	3.0	3.0	3.0	3.0	2.7	2.0	3.4	3.9	2.7	3.1
75	372	GM-R	1	1	9	33.25	2	2	7	5	4	5	5	7	3.0	3.3	2.0	2.0	1.7	2.0	3.0	4.2	2.3	3.4
76	377	GM-R	1	1	6	34.20	2	2	5	9	4	1	6	7	3.0	3.0	2.3	1.7	2.0	2.0	4.0	5.4	3.3	4.5
77	387	GM-R	1	1	6	29.48	3	3	7	7	4	1	5	7	3.0	2.7	2.3	1.7	2.0	2.0	4.1	4.5	3.3	3.4
78	389	GM-R	1	1	9	36.00	2	2	7	5	4	5	5	7	2.3	2.7	2.7	1.7	2.0	2.0	4.0	3.6	3.3	2.8
79	395	GM-R	1	1	6	33.24	2	2	5	7	4	1	6	6	3.3	2.3	2.3	1.7	2.0	2.3	4.6	2.6	3.4	1.8
80	397	GM-R	1	1	5	30.46	3	3	5	7	4	1	5	7	2.7	2.3	2.7	3.0	2.7	2.7	2.9	1.4	2.2	0.8
81	398	GM-R	1	1	9	29.97	3	3	7	7	4	5	5	6	2.7	2.0	2.3	2.0	2.3	1.7	3.3	3.5	2.4	2.6
82	399	GM-R	1	1	8	34.06	3	3	7	3	3	5	6	7	3.0	3.0	2.7	1.7	2.7	3.0	3.2	2.2	2.6	1.7
83	407	GM-R	1	1	9	32.25	3	3	5	3	4	5	6	8	3.0	3.0	4.0	3.3	3.0	2.0	3.1	3.9	2.4	2.8
Control																								
84	296B	High yield	1	1	8	30.03	3	3	5	7	3	1	6	7	3.0	2.0	3.3	2.3	2.0	1.7	4.7	3.0	3.2	2.1
Mean			-	-	-	30.19	-	-	-	-	-	-	6	7	2.94	2.75	2.81	2.34	2.24	1.92	3.70	3.72	2.63	2.80
SE ±			-	-	-	1.95	-	-	-	-	-	-	0.26	0.22	0.23	0.27	0.28	0.29	0.31	0.23	0.45	0.21	0.33	0.17
CV (%)			-	-	-	11.16	-	-	-	-	-	-	8.01	5.38	13.73	17.19	17.28	21.41	24.02	20.33	20.88	9.73	21.93	10.44
CD (5%)			-	-	-	5.43	-	-	-	-	-	-	0.72	0.68	0.65	0.71	0.78	0.79	0.88	0.76	1.25	1.12	0.93	0.86

Serial number		ICSB number	Trait		Seed set % under high atmospheric temperature in A-line	Seed set % in A-line under open pollination	Downy mildew infected plants%	50	51		52	53	54	55	56
			Summer	Postrainy					Anthraxnose score for leaf	Anthraxnose score for panicle					
1	202	DM-R	0	80	-	0.0	-	-	-	-	-	-	-	-	-
2	216	DM-R	0	-	-	-	-	-	-	-	-	-	-	-	-
3	217	DM-R	0	10	-	4.0	-	-	-	-	-	-	-	-	-
4	218	DM-R	0	50	-	6.0	-	-	-	-	-	-	-	-	-
5	220	DM-R	0	65	-	22.0	-	-	-	-	-	-	-	-	-
6	223	DM-R	0	-	-	-	-	-	-	-	-	-	-	-	-
7	224	DM-R	0	-	-	-	-	-	-	-	-	-	-	-	-
8	225	DM-R	0	20	-	25.5	-	-	-	-	-	-	-	-	-
9	226	DM-R	0	50	-	5.0	-	-	-	-	-	-	-	-	-
10	227	DM-R	90	-	-	-	-	-	-	-	-	-	-	-	-
11	228	DM-R	0	-	-	-	-	-	-	-	-	-	-	-	-
12	229	DM-R	0	-	-	-	-	-	-	-	-	-	-	-	-
13	230	DM-R	0	-	-	9.5	-	-	-	-	-	-	-	-	-
14	231	DM-R	0	40	-	20.0	-	-	-	-	-	-	-	-	-
15	245	DM-R	0	45	-	0.0	-	-	-	-	-	-	-	-	-
16	249	DM-R	0	25	-	-	-	-	-	-	-	-	-	-	-
17	251	DM-R	0	30	-	16.0	-	-	-	-	-	-	-	-	-
18	252	DM-R	0	75	-	6.0	-	-	-	-	-	-	-	-	-
19	253	DM-R	0	30	-	9.0	-	-	-	-	-	-	-	-	-
20	255	DM-R	0	45	-	5.0	-	-	-	-	-	-	-	-	-
21	256	DM-R	0	-	-	-	-	-	-	-	-	-	-	-	-
22	260	AN-R	0	5	5.1	-	-	6.1	-	-	-	-	-	-	-
23	262	AN-R	0	-	4.5	-	-	7.3	-	-	-	-	-	-	-
24	263	AN-R	0	50	4.8	-	-	-	-	-	-	-	-	-	-
25	265	AN-R	0	20	3.5	-	-	2.9	-	-	-	-	-	-	-
26	267	AN-R	0	75	3.7	-	-	-	-	-	-	-	-	-	-
27	270	AN-R	0	25	3	4.1	-	-	-	-	-	-	-	-	-
28	271	AN-R	0	30	3.2	-	-	2.7	-	-	-	-	-	-	-
29	277	AN-R	0	95	-	-	-	-	-	-	-	-	-	-	-
30	278	AN-R	0	40	2.9	-	-	6.3	-	-	-	-	-	-	-
31	279	AN-R	0	25	3.4	-	-	-	-	-	-	-	-	-	-
32	282	AN-R	0	80	3.2	-	-	-	-	-	-	-	-	-	-
33	283	AN-R	0	70	2.9	4.3	-	-	-	-	-	-	-	-	-
34	284	AN-R	0	80	3.5	-	-	-	-	-	-	-	-	-	-

Trait number →		48	49	50	51	52	53	54	55	56		
Serial number	ICSB number	Trait	Seed set % under high atmospheric temperature in A-line Summer	Seed set % in A-line under open pollination Postrainy	Downy mildew infected plants% Rainy	Anthracnose score for leaf Rainy		Leaf blight score Postrainy	Rust score Postrainy	Panicle grain mold rating score Rainy		Threshed grain mold rating score Rainy
						Anthracnose score for leaf Rainy	Anthracnose score for panicle Rainy			Panicle grain mold rating score Rainy	Threshed grain mold rating score Rainy	
35	285	AN-R	0	25	-	3.4	-	-	-	-	-	-
36	286	AN-R	0	30	-	3.8	-	-	-	-	-	-
37	287	AN-R	0	25	-	3.4	6.3	-	-	-	-	-
38	288	AN-R	0	50	-	3.6	-	-	-	-	-	-
39	289	AN-R	0	30	-	3.3	3.8	-	-	-	-	-
40	290	AN-R	0	20	-	4	7.7	-	-	-	-	-
41	291	AN-R	0	40	-	3.1	3.5	-	-	-	-	-
42	292	AN-R	0	45	-	2.7	6.1	-	-	-	-	-
43	294	AN-R	0	-	-	-	-	-	-	-	-	-
44	295	AN-R	0	80	-	6.7	-	-	-	-	-	-
45	296	LB-R	0	85	-	-	-	4.1	2	-	-	-
46	298	LB-R	0	80	-	-	-	-	-	-	-	-
47	299	LB-R	0	30	-	-	-	3.5	4.3	-	-	-
48	302	LB-R	10	-	-	-	-	-	-	-	-	-
49	312	LB-R	0	-	-	-	-	-	-	-	-	-
50	313	LB-R	0	90	-	-	-	-	-	-	-	-
51	314	LB-R	0	90	-	-	-	-	-	-	-	-
52	315	LB-R	0	75	-	-	-	-	-	-	-	-
53	316	LB-R	0	80	-	-	-	-	-	-	-	-
54	317	LB-R	0	-	-	-	-	3.7	4	-	-	-
55	320	LB-R	0	20	-	-	-	4.8	2.7	-	-	-
56	322	LB-R	0	70	-	-	-	5.4	3	-	-	-
57	330	RU-R	0	40	-	-	-	4	3.9	-	-	-
58	331	RU-R	0	50	-	-	-	3.6	3.9	-	-	-
59	332	RU-R	0	40	-	-	-	4.1	4	-	-	-
60	335	RU-R	0	55	-	-	-	-	-	-	-	-
61	337	RU-R	0	50	-	-	-	4	6.2	-	-	-
62	338	RU-R	0	30	-	-	-	3.9	2	-	-	-
63	341	RU-R	0	-	-	-	-	-	-	-	-	-
64	344	RU-R	0	70	-	-	-	-	-	-	-	-
65	346	RU-R	0	90	-	-	-	-	-	-	-	-
66	347	RU-R	0	60	-	-	-	-	-	-	-	-
67	349	RU-R	0	65	-	-	-	-	-	-	-	-
68	352	GM-R	0	70	-	-	-	-	-	-	-	-
69	354	GM-R	0	30	-	-	-	-	-	-	5.6	5.6
70	356	GM-R	0	60	-	-	-	-	-	-	5.2	4.9
											5.6	5.8

Trait number →		48	49	50	51	52	53	54	55	56
Serial number	ICSB number	Seed set % under high atmospheric temperature in A-line	Seed set % in A-line under open pollination	Downy mildew infected plants%	Anthraxnose score for leaf	Anthraxnose score for panicle	Leaf blight score	Rust score	Panicle grain mold rating score	Threshed grain mold rating score
		Summer	Postrainy	Rainy	Rainy	Rainy	Postrainy	Postrainy	Rainy	Rainy
71	357	GM-R	0	80	-	-	-	-	6.1	5.8
72	359	GM-R	0	75	-	-	-	-	7.1	7.3
73	360	GM-R	0	30	-	-	-	-	6.6	6.7
74	365	GM-R	0	90	-	-	-	-	5.8	6.3
75	372	GM-R	0	30	-	-	-	-	6.2	6.4
76	377	GM-R	0	60	-	-	-	-	5.8	3.6
77	387	GM-R	0	70	-	-	-	-	5.9	5
78	389	GM-R	0	75	-	-	-	-	6.4	6.5
79	395	GM-R	0	40	-	-	-	-	6.2	4.8
80	397	GM-R	60	40	-	-	-	-	7.8	7.9
81	398	GM-R	0	80	-	-	-	-	7.5	7.4
82	399	GM-R	0	75	-	-	-	-	6.2	6.9
83	407	GM-R	0	30	-	-	-	-	7.1	6.5
Control										
84	296B	High yield	-	-	-	-	-	-	-	-
Mean			-	-	-	-	-	-	-	-
SE ±			-	-	-	-	-	-	-	-
CV (%)			-	-	-	-	-	-	-	-
CD (5%)			-	-	-	-	-	-	-	-

Annexure I-5. Characteristics of disease resistant (late maturity) sorghum B-lines evaluated during the rainy and post-rainy seasons, 2005 at ICRISAT-Patancheru.

Serial number	ICSB number	Trait	1		2		3		4		5		6		7		8		9		10	
			Rainy		Rainy		Rainy		Rainy		Rainy		Rainy		Rainy		Rainy		Rainy		Rainy	
			Post-rainy	Post-rainy	Post-rainy	Post-rainy	Post-rainy	Post-rainy	Post-rainy	Post-rainy	Post-rainy	Post-rainy	Post-rainy	Post-rainy	Post-rainy	Post-rainy	Post-rainy	Post-rainy	Post-rainy	Post-rainy	Post-rainy	Post-rainy
1	209	DM-R	1	1	1	1	2	2	78	86	1.6	1.1	1	1	2	2	1	1	1	1	1	1
2	211	DM-R	1	1	1	1	2	2	82	96	0.8	0.6	1	1	2	2	1	1	1	1	1	1
3	212	DM-R	1	1	1	1	2	2	78	78	0.9	0.8	1	1	2	2	1	1	1	1	3	3
4	214	DM-R	1	1	1	1	2	2	75	84	1.0	0.8	1	1	2	2	1	1	1	1	1	1
5	219	DM-R	2	2	3	3	2	2	81	80	0.9	0.7	1	1	2	2	1	1	1	1	1	1
6	221	DM-R	2	2	3	3	2	2	81	90	1.2	0.8	1	1	2	2	1	1	1	1	1	1
7	232	DM-R	2	2	3	3	2	2	80	93	1.3	0.8	1	1	2	2	1	1	1	1	3	3
8	234	DM-R	2	2	3	3	1	2	81	88	1.1	0.8	1	1	2	2	1	1	1	1	1	1
9	238	DM-R	2	2	3	3	2	2	81	88	1.5	1.0	1	1	2	2	1	1	1	1	5	3
10	239	DM-R	2	2	3	3	2	2	80	91	1.3	0.9	1	1	2	2	1	1	1	1	5	3
11	240	DM-R	2	2	3	3	2	2	78	84	1.1	0.8	1	5	2	2	1	1	1	1	1	1
12	241	DM-R	2	2	3	3	2	2	81	86	1.1	0.8	1	5	2	2	1	1	1	1	1	1
13	242	DM-R	2	2	3	3	2	2	80	83	1.0	0.7	3	5	2	2	1	1	1	1	1	1
14	246	DM-R	2	2	3	3	2	2	77	87	1.2	0.9	3	1	2	2	1	1	1	1	1	1
15	248	DM-R	2	2	3	3	2	2	79	89	1.2	0.8	3	1	2	2	1	1	1	1	5	3
16	257	DM-R	2	1	3	3	2	2	78	92	1.2	0.9	1	1	2	2	1	1	1	1	5	3
17	258	DM-R	2	2	3	3	2	2	78	90	1.2	0.9	1	1	2	2	1	1	1	1	5	5
18	259	DM-R	2	2	3	3	2	2	82	98	1.2	0.8	1	1	2	2	1	1	1	1	5	5
19	306	LB-R	1	1	1	1	2	2	79	94	1.5	1.0	1	1	2	2	1	1	1	1	1	1
20	307	LB-R	2	2	3	3	2	2	81	98	1.4	0.9	1	1	2	2	1	1	1	1	1	1
21	308	LB-R	1	1	1	1	2	2	79	87	1.3	0.9	1	1	2	2	1	1	1	1	1	1
22	309	LB-R	1	1	1	1	2	2	77	90	1.5	0.9	1	1	2	2	1	1	1	1	1	1
23	310	LB-R	2	1	3	1	2	2	80	85	1.3	0.8	1	1	2	2	1	1	1	1	3	3
24	319	LB-R	1	1	1	1	2	2	81	91	1.8	1.2	1	1	2	2	1	1	1	1	1	1
Control																						
25	296B	High yield	2	2	3	1	2	2	78	96	1.1	0.8	1	1	2	2	1	1	1	1	5	5
Mean			-	-	-	-	-	-	79	88	1.3	0.9	-	-	-	-	-	-	-	-	-	-
SE \pm			-	-	-	-	-	-	1.24	1.23	0.03	0.03	-	-	-	-	-	-	-	-	-	-
CV (%)			-	-	-	-	-	-	2.74	2.40	4.45	6.35	-	-	-	-	-	-	-	-	-	-
CD (5%)			-	-	-	-	-	-	3.53	3.44	0.09	0.09	-	-	-	-	-	-	-	-	-	-

DM= Downy mildew; LB= Leaf blight; R= Resistant.

Trait No. 1-41 : Traits stipulated in the DUS-test guidelines (Trait no 38 was not recorded in the current trials).

Trait No. 42-48 : Ancillary traits recorded in the current trials.

Trait No. 49-56 : Monitored traits recorded in various trials conducted earlier at ICRISAT.

Trait number →		11		12		13		14		15		16		17		18		19		20		
Serial number	ICSB number	Trait	Stigma: anthocyanin coloration		Stigma: yellow coloration		Stigma length		Pedicellate flower length		Length of anther		Dried anther color		Glume color		Plant height (m) at maturity		Stem thickness (mm)		Juicy score	
			Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
1	209	DM-R	1	1	1	1	5	5	7	5	5	5	6	4	4	7	1.8	1.3	22.1	20.5	1	2
2	211	DM-R	1	1	5	7	5	5	5	5	5	5	7	4	2	2	1.0	0.9	21.9	22.0	1	1
3	212	DM-R	1	1	7	5	5	5	7	5	7	5	4	7	5	5	1.2	1.1	21.3	18.9	2	2
4	214	DM-R	1	1	7	5	5	5	5	5	5	5	7	7	2	2	1.3	1.0	19.7	18.7	1	1
5	219	DM-R	1	1	1	1	5	3	5	5	5	5	4	4	5	5	1.2	1.0	23.6	18.2	1	1
6	221	DM-R	1	1	1	1	5	5	5	5	5	5	4	4	5	5	1.5	1.0	24.9	19.7	1	1
7	232	DM-R	1	1	1	1	9	9	5	5	5	5	7	4	2	2	1.6	1.1	20.6	16.4	1	1
8	234	DM-R	1	1	1	1	5	5	5	5	5	5	4	4	2	2	1.4	1.1	21.5	18.5	1	1
9	238	DM-R	1	1	1	1	9	9	5	5	5	5	4	4	1	1	1.9	1.4	21.9	19.3	1	1
10	239	DM-R	1	1	1	1	5	9	5	5	5	5	7	4	2	2	1.6	1.3	21.0	18.0	1	1
11	240	DM-R	1	1	1	1	5	5	5	5	5	5	4	4	4	4	1.4	1.2	21.3	18.7	1	2
12	241	DM-R	1	1	1	1	5	3	5	5	5	5	4	4	5	5	1.5	1.2	22.3	20.6	1	1
13	242	DM-R	1	1	1	1	5	5	5	5	5	5	4	4	5	5	1.2	1.0	22.0	17.3	1	1
14	246	DM-R	1	1	1	1	9	5	7	5	5	5	4	4	2	2	1.6	1.2	19.5	18.3	1	1
15	248	DM-R	1	1	1	1	5	5	5	5	5	5	7	4	2	2	1.5	1.1	20.8	18.8	1	1
16	257	DM-R	1	1	1	1	5	5	5	5	5	5	4	4	2	2	1.5	1.1	22.4	18.9	1	1
17	258	DM-R	1	1	1	1	9	9	5	5	5	5	4	4	4	5	1.6	1.2	21.9	20.2	1	1
18	259	DM-R	1	1	1	1	5	5	5	5	5	5	7	4	4	7	1.5	1.1	22.0	18.0	1	1
19	306	LB-R	1	1	1	1	5	3	5	5	5	5	4	4	2	2	1.8	1.4	21.8	20.5	1	1
20	307	LB-R	1	1	1	1	5	5	5	5	5	5	4	4	4	4	1.8	1.3	20.5	21.3	1	1
21	308	LB-R	1	1	1	1	5	5	5	5	5	5	4	4	3	2	1.6	1.2	21.7	19.4	1	1
22	309	LB-R	1	1	1	1	5	9	5	5	5	5	6	6	4	4	1.8	1.2	22.2	23.5	1	1
23	310	LB-R	1	1	5	5	5	5	5	5	5	5	6	6	5	2	1.4	1.0	18.9	18.4	1	1
24	319	LB-R	1	1	1	1	5	3	5	5	5	5	6	6	2	2	2.1	1.7	20.6	17.9	1	1
Control																						
25	296B	High yield	1	1	1	1	9	5	5	5	5	5	4	4	2	-	1.4	1.0	21.0	19.4	1	1
Mean			-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.60	1.20	21.15	19.01	-	-
SE ±			-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.04	0.03	1.04	0.86	-	-
CV (%)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.40	4.80	8.50	7.83	-	-
CD (5%)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.12	0.10	2.94	2.65	-	-

Annexure E-3: ... Contd.																										
Trait number →			21		22		23		24		25		26		27		28		29		30		31			
Serial number	ICSB number	Trait	Brix reading (%)		Leaf length (cm)		Leaf width (cm)		Panicle length (cm)		Panicle branch length (cm)		Panicle compactness		Panicle shape		Panicle exertion (cm)		Glume coverage (%)		Shattering		Thresholdability%			
			Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy		
1	209	DM-R	9.4	8.9	59.8	57.1	8.9	7.2	31.1	26.9	9.5	7.3	5	7	3	3	0.0	1.8	33.3	33.3	1	1	1	1		
2	211	DM-R	10.0	15.8	69.3	62.7	8.2	6.8	28.6	29.2	9.8	9.4	7	7	3	3	0.2	1.5	41.7	33.3	1	1	1	1		
3	212	DM-R	6.3	8.7	58.2	57.1	8.1	6.6	27.8	21.3	7.7	6.9	5	7	3	3	9.8	10.7	41.7	50.0	1	1	1	1		
4	214	DM-R	12.0	13.3	74.1	69.6	10.8	7.6	32.2	22.1	9.1	7.2	5	5	3	3	0.9	1.8	41.7	41.7	1	1	1	1		
5	219	DM-R	5.2	17.3	62.0	60.2	7.9	6.1	31.0	25.3	9.6	7.3	5	5	3	3	0.0	4.0	50.0	41.7	1	1	1	1		
6	221	DM-R	7.6	13.7	66.4	57.1	8.2	6.8	29.7	22.4	7.8	5.7	7	7	3	3	0.0	2.9	33.3	25.0	1	1	1	1		
7	232	DM-R	11.1	16.4	71.6	56.7	8.3	6.3	33.1	24.1	7.7	5.6	7	7	3	3	0.6	5.1	25.0	25.0	1	1	1	1		
8	234	DM-R	11.9	11.9	70.1	59.1	8.6	6.6	29.8	25.7	6.4	5.9	5	7	3	3	1.6	8.1	25.0	25.0	1	1	1	1		
9	238	DM-R	12.1	16.0	78.1	60.2	9.3	6.8	36.3	27.7	8.8	6.8	5	7	3	3	2.9	10.9	41.7	25.0	1	1	1	1		
10	239	DM-R	12.8	13.9	69.8	55.1	8.2	6.4	30.9	25.6	7.7	5.0	7	7	3	3	0.4	7.3	25.0	25.0	1	1	1	1		
11	240	DM-R	8.3	13.2	65.8	56.2	9.4	6.6	35.7	28.0	8.4	7.0	5	7	3	3	1.0	8.0	41.7	25.0	1	1	1	1		
12	241	DM-R	7.6	14.9	62.1	58.6	8.2	6.8	33.3	25.7	7.2	6.1	5	7	3	3	2.1	11.2	33.3	25.0	1	1	1	1		
13	242	DM-R	8.6	13.1	62.3	58.4	8.7	6.4	33.4	24.8	6.3	5.4	5	7	3	3	0.0	3.0	25.0	25.0	1	1	1	1		
14	246	DM-R	10.2	14.3	67.8	62.0	8.9	7.1	34.4	25.7	7.6	5.6	5	7	3	3	6.3	8.3	25.0	25.0	1	1	1	1		
15	248	DM-R	12.3	14.6	66.1	62.6	9.0	7.2	34.0	25.3	7.7	6.8	5	7	3	3	0.0	2.0	25.0	25.0	1	1	1	1		
16	257	DM-R	9.9	13.6	66.1	57.4	9.4	7.0	34.3	26.8	10.4	7.0	5	5	3	3	0.0	3.6	25.0	25.0	1	1	1	1		
17	258	DM-R	10.3	16.3	70.2	60.2	9.2	6.8	32.1	26.0	7.2	5.6	7	7	3	3	3.9	8.7	25.0	25.0	1	1	1	1		
18	259	DM-R	10.4	16.2	63.1	57.0	7.9	6.4	34.7	25.8	7.5	6.8	5	5	3	3	1.2	4.3	33.3	25.0	1	1	1	1		
19	306	LB-R	14.9	14.4	65.7	64.6	7.6	7.2	30.4	26.9	8.4	6.7	5	5	3	3	1.4	7.9	25.0	25.0	1	1	1	1		
20	307	LB-R	16.3	15.9	74.6	56.6	8.7	6.4	28.3	26.1	9.3	8.1	5	7	3	3	3.2	9.3	25.0	25.0	1	1	1	1		
21	308	LB-R	13.2	13.4	73.2	54.0	8.9	7.2	27.2	23.2	8.3	6.4	5	7	3	3	1.4	5.0	25.0	41.7	1	1	1	1		
22	309	LB-R	16.7	15.0	62.7	61.7	8.0	7.2	27.8	21.7	7.6	6.3	7	7	3	3	4.1	7.8	25.0	25.0	1	1	1	1		
23	310	LB-R	14.8	15.2	67.7	62.8	8.2	7.0	24.0	20.8	6.4	4.8	7	7	3	3	0.0	1.3	25.0	25.0	1	1	1	1		
24	319	LB-R	17.9	17.2	69.9	57.7	8.4	6.7	27.2	25.3	8.4	6.2	5	7	3	3	9.8	21.9	25.0	25.0	1	1	1	1		
Control																										
25	296B	High yield	8.2	17.8	63.3	65.2	8.1	6.9	31.2	25.1	7.0	5.8	7	7	3	3	2.1	3.1	25.0	25.0	1	1	1	1		
Mean			11.07	14.22	66.81	59.47	8.52	6.76	30.53	24.56	8.03	6.35	-	-	-	-	2.77	7.13	34.23	30.36	-	-	-	-		
SE ±			1.41	1.55	3.41	2.61	0.35	0.30	0.94	0.98	0.38	0.54	-	-	-	-	0.38	0.68	4.61	3.79	-	-	-	-		
CV (%)			22.13	18.87	8.85	7.60	7.03	7.76	5.35	6.91	8.25	14.67	-	-	-	-	23.60	16.55	23.31	21.60	-	-	-	-		
CD (5%)			4.01	4.15	9.68	9.07	0.98	0.92	2.67	2.67	1.08	1.32	-	-	-	-	1.07	1.56	13.06	11.81	-	-	-	-		

Trait number →			32		33		34		35		36		37		39		40		41		42		43		44		45		46		47	
Serial number	ICSB number	Trait	Grain form		Grain color	1000-grain mass (g)		Grain shape-dorsal view		Grain shape-profile view		Grain germ size		Endosperm texture		Albumen color		Grain lustre		Days to seedling emergence		Leaf glossy score		Seedling vigor score		Plant aspect score		Panicle yield (t ha ⁻¹)		Grain yield (t ha ⁻¹)		
			Rainy	Postrainy		Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy
1	209	DM-R	1	1	8	32.91	3	3	3	3	3	5	5	5	7	3	4	5	5	6	7	3.0	2.7	3.0	3.0	1.7	2.3	4.5	3.3	3.2	2.0	
2	211	DM-R	1	1	9	24.26	3	3	3	3	3	5	5	7	8	4	1	1	1	7	8	3.7	3.0	4.3	4.3	3.0	1.3	3.1	5.3	1.4	3.5	
3	212	DM-R	1	1	9	23.20	2	2	2	2	2	7	7	5	7	4	1	1	1	6	7	3.3	2.7	3.0	2.7	2.7	2.0	3.3	3.6	2.2	2.8	
4	214	DM-R	1	1	9	23.18	2	2	2	2	2	5	5	7	7	4	1	1	1	6	7	3.0	3.3	3.0	2.3	1.7	2.0	4.8	4.0	3.5	3.0	
5	219	DM-R	1	1	8	23.81	3	3	3	3	3	5	5	3	3	3	5	5	7	8	3.3	2.7	3.3	3.0	2.7	2.0	2.4	3.0	1.3	2.3		
6	221	DM-R	1	1	8	28.13	3	3	3	3	3	5	5	5	5	3	3	1	1	6	8	3.3	2.7	3.0	3.3	1.7	2.0	3.3	4.3	2.0	3.1	
7	232	DM-R	1	1	8	29.58	3	3	3	3	3	5	5	5	5	3	1	1	1	6	7	3.0	2.3	2.7	2.3	1.3	1.3	3.9	3.7	2.3	2.5	
8	234	DM-R	1	1	8	29.58	3	3	3	3	3	5	5	5	5	3	3	5	5	6	7	2.7	2.7	3.0	2.3	1.7	1.7	3.7	4.5	2.4	3.3	
9	238	DM-R	1	1	8	30.05	3	3	3	3	3	5	5	5	5	3	3	5	5	6	7	3.0	3.3	3.0	2.7	1.7	1.0	3.4	4.5	1.8	3.4	
10	239	DM-R	1	1	8	28.79	3	3	3	3	3	5	5	5	5	3	1	1	1	6	7	3.3	3.0	3.0	2.3	1.3	1.7	4.4	4.0	2.7	3.0	
11	240	DM-R	1	1	8	31.57	3	3	3	3	3	5	5	5	5	3	5	5	7	8	3.0	3.0	3.0	3.0	1.7	1.7	4.4	5.0	3.0	3.2		
12	241	DM-R	1	1	8	29.98	3	3	3	3	3	5	5	3	3	3	5	5	6	7	3.0	2.7	3.0	2.7	1.3	2.0	3.9	3.5	2.6	2.3		
13	242	DM-R	1	1	8	30.94	3	3	3	3	3	5	5	5	5	3	1	1	1	6	7	2.7	3.0	3.0	2.7	2.0	2.0	4.4	3.8	3.0	2.5	
14	246	DM-R	1	1	8	31.89	3	3	3	3	3	5	5	3	3	3	5	5	6	7	2.7	2.7	3.0	2.7	1.7	1.7	4.3	3.7	2.9	2.6		
15	248	DM-R	1	1	8	31.50	3	3	3	3	3	5	5	5	5	3	1	1	1	7	7	3.0	3.3	3.0	2.7	1.3	2.0	4.9	4.4	3.3	3.0	
16	257	DM-R	1	1	8	29.84	3	3	3	3	3	5	5	5	5	3	1	1	1	6	7	3.0	2.7	3.0	2.7	2.0	1.3	4.7	4.2	3.2	2.9	
17	258	DM-R	1	1	8	33.71	3	3	3	3	3	5	5	5	5	3	5	5	6	8	3.0	2.7	3.0	3.3	1.7	2.0	4.4	3.3	3.0	2.0		
18	259	DM-R	1	1	8	27.10	3	3	3	3	3	5	5	5	5	3	1	1	1	7	8	3.0	2.7	4.0	3.7	2.7	1.0	3.5	5.2	1.8	3.2	
19	306	LB-R	1	1	8	32.88	3	3	3	3	3	5	5	5	5	3	5	5	6	7	2.7	3.0	2.7	2.3	2.3	1.0	3.9	5.6	2.9	4.3		
20	307	LB-R	1	1	8	28.98	3	3	3	3	3	5	5	3	3	3	5	5	5	7	2.7	2.3	3.0	2.7	2.7	1.3	3.7	4.3	2.8	2.5		
21	308	LB-R	1	1	8	24.38	3	3	3	3	3	5	5	3	3	3	5	5	5	7	3.0	2.7	2.7	2.7	1.7	1.3	5.0	6.4	4.0	5.1		
22	309	LB-R	1	1	1	37.06	3	3	3	3	3	5	5	3	3	3	5	5	6	7	3.0	3.0	2.3	3.3	1.7	1.3	5.2	5.2	4.2	4.1		
23	310	LB-R	1	1	8	32.10	3	3	3	3	3	7	7	3	3	3	5	5	5	6	3.0	2.7	3.0	2.3	2.7	2.0	4.2	5.6	3.1	4.2		
24	319	LB-R	1	1	1	38.14	3	3	3	3	3	7	7	5	5	3	7	7	6	7	2.7	3.0	3.0	2.7	2.3	1.7	3.3	3.9	2.2	2.7		
Control																																
25	296B	High yield	1	1	8	28.36	3	3	3	3	3	5	5	5	5	3	5	5	6	7	3.0	3.0	3.0	3.0	1.3	1.3	4.5	3.3	3.2	2.0		
Mean			-	-	-	29.74	-	-	-	-	-	-	-	-	-	-	-	-	6	7	2.99	2.80	2.96	2.69	2.04	1.64	3.99	4.37	2.72	3.09		
SE ±			-	-	-	1.07	-	-	-	-	-	-	-	-	-	-	-	-	0.22	0.20	0.23	0.28	0.17	0.28	0.30	0.22	0.40	0.25	0.31	0.22		
CV (%)			-	-	-	6.24	-	-	-	-	-	-	-	-	-	-	-	-	6.43	4.74	13.54	17.62	9.94	17.88	25.43	23.46	17.32	10.10	19.76	12.58		
CD (5%)			-	-	-	3.04	-	-	-	-	-	-	-	-	-	-	-	-	0.64	0.65	0.66	0.73	0.48	0.70	0.85	0.75	1.14	1.10	0.89	0.89		

Trait number	ICSB number	Trait	48	49	50	51	52
			Seed set % under high atmospheric temperature in A-line	Seed set % in A-line under open pollination	Downy mildew infected plants%	Leaf blight score	Rust score
Serial number	ICSB number	Trait	Summer	Postrainy	Rainy	Postrainy	Postrainy
1	209	DM-R	0	65	7	-	-
2	211	DM-R	0	-	23	-	-
3	212	DM-R	0	15	1	-	-
4	214	DM-R	0	50	5	-	-
5	219	DM-R	0	55	14	-	-
6	221	DM-R	0	40	11	-	-
7	232	DM-R	0	15	7	-	-
8	234	DM-R	0	25	15	-	-
9	238	DM-R	0	50	20	-	-
10	239	DM-R	0	45	10	-	-
11	240	DM-R	0	20	4	-	-
12	241	DM-R	0	15	0	-	-
13	242	DM-R	0	15	1	-	-
14	246	DM-R	0	40	22	-	-
15	248	DM-R	0	20	1	-	-
16	257	DM-R	0	30	15	-	-
17	258	DM-R	0	25	0	-	-
18	259	DM-R	0	30	15	-	-
19	306	LB-R	0	20	-	4.5	2.7
20	307	LB-R	0	25	-	3.4	2.5
21	308	LB-R	10	15	-	3.6	2.5
22	309	LB-R	0	40	-	4	2.7
23	310	LB-R	40	30	-	4	2.4
24	319	LB-R	0	25	-	5.4	2.7
Control							
25	296B	High yield	-	-	-	-	-
Mean			-	-	-	-	-
SE ±			-	-	-	-	-
CV (%)			-	-	-	-	-
CD (5%)			-	-	-	-	-

Annexure I-6: Characteristics of stress tolerant (early maturity) sorghum B-lines evaluated during the rainy and post-rainy seasons, 2005 at ICRISAT-Patancheru.

Serial number	ICSB number	Trait number →		1		2		3		4		5		6		7		8		9		10	
		Trait		Coleoptile color		Fifth leaf sheath color		Leaf midrib color		Days to 50% flowering		Plant height (m) at flowering		Flag leaf: Extension of discoloration of mid rib		Flag leaf: intensity of green coloration of midrib compared to the blade		Flag leaf: yellow coloration of mid rib		Glume hair color		Lemma: arista formation	
				Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy
1	567	Striga		1	1	1	1	2	2	65	73	1.0	0.7	1	1	2	2	1	1	1	1	5	9
2	568	Striga		1	1	1	1	2	2	61	74	1.0	0.8	1	5	2	2	1	1	1	1	5	5
3	569	Striga		2	1	1	1	2	2	75	93	1.2	0.7	1	1	2	2	1	1	1	1	1	1
4	571	Striga		2	2	3	3	2	2	68	79	1.2	0.9	5	7	2	2	1	1	1	1	1	1
5	572	Striga		2	2	3	3	2	2	68	76	1.2	0.9	3	7	2	2	1	1	1	1	1	1
6	584	Striga		2	2	3	3	2	2	70	88	1.1	0.8	1	1	2	2	1	1	1	1	9	9
7	594	Striga		1	1	1	1	2	2	66	84	1.0	0.7	1	1	2	2	1	1	1	1	1	1
8	598	Striga		1	1	1	1	2	2	61	83	0.8	0.7	1	1	2	2	1	1	1	1	1	1
9	599	Striga		1	1	1	1	2	2	65	73	1.0	0.8	5	5	2	2	1	1	1	1	1	1
10	671	Tillering		2	1	1	3	2	2	59	75	1.1	0.9	1	1	2	2	1	1	1	1	1	1
11	682	Stay green		1	1	1	1	2	2	63	76	1.3	0.8	1	1	2	2	1	1	1	1	1	1
Control																							
12	296B	High yield		2	2	3	1	2	2	78	93	1.1	0.8	1	1	2	2	1	1	1	1	5	5
Mean				-	-	-	-	-	-	69	80	1.20	0.86	-	-	-	-	-	-	-	-	-	-
SE ±				-	-	-	-	-	-	0.91	1.39	0.08	0.03	-	-	-	-	-	-	-	-	-	-
CV (%)				-	-	-	-	-	-	2.30	3.02	10.96	6.43	-	-	-	-	-	-	-	-	-	-
CD (5%)				-	-	-	-	-	-	2.62	4.12	0.22	0.16	-	-	-	-	-	-	-	-	-	-

Trait No. 1-41 : Traits stipulated in the DUS-test guidelines (Trait no 38 was not recorded in the current trials).

Trait No. 42-48 : Ancillary traits recorded in the current trials.

Trait No. 49-51 : Monitored traits recorded in various trials conducted earlier at ICRISAT.

Trait number →			11		12		13		14		15		16		17		18		19		20	
Serial number	ICSB number	Trait	Stigma: anthocyanin coloration		Stigma: yellow coloration		Stigma length		Pedicellate flower length		Length of anther		Dried anther color		Glume color		Plant height (m) at maturity		Stem thickness (mm)		Juicy score	
			Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
1	567	Striga	1	1	1	1	9	5	3	3	5	5	7	7	4	5	1.4	1.0	16.6	12.8	1	1
2	568	Striga	1	1	7	5	5	5	3	5	5	5	7	4	2	5	1.5	1.1	15.9	13.7	1	1
3	569	Striga	1	1	5	5	5	3	5	5	5	5	4	4	4	5	1.6	1.1	17.8	16.7	1	1
4	571	Striga	1	1	5	1	5	5	5	3	5	5	6	4	4	5	1.4	1.1	16.2	12.9	1	1
5	572	Striga	1	1	1	1	3	5	5	5	5	5	6	4	4	5	1.5	1.2	15.2	13.8	1	2
6	584	Striga	1	1	5	1	5	9	5	5	3	3	6	4	4	5	1.4	1.0	17.6	15.5	1	1
7	594	Striga	1	1	5	1	5	5	5	5	5	5	4	4	4	5	1.3	1.0	16.8	16.8	1	1
8	598	Striga	1	1	5	1	3	5	5	5	5	5	4	4	4	5	1.2	1.0	15.9	16.8	1	1
9	599	Striga	1	1	5	1	5	5	5	3	3	3	4	4	2	2	1.3	1.1	15.4	14.5	1	1
10	671	Tillering	1	1	7	5	3	3	7	7	5	5	7	4	4	5	1.5	1.3	12.9	15.5	1	2
11	682	Stay green	1	1	1	1	5	3	5	5	5	5	7	4	5	5	1.5	1.2	14.6	13.9	2	2
Control																						
12	296B	High yield	1	1	1	1	5	5	5	5	5	5	4	4	2	2	1.4	1.1	22.3	17.4	2	2
Mean			-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.53	1.18	17.13	15.07	-	-
SE ±			-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.04	0.07	0.98	1.01	-	-
CV (%)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.64	10.97	9.91	11.60	-	-
CD (5%)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.12	0.18	2.88	2.95	-	-

Trait number →		21		22		23		24		25		26		27		28		29		30		31	
		Brix reading (%)		Leaf length (cm)		Leaf width (cm)		Panicle length (cm)		Panicle branch length (cm)		Panicle compactness		Panicle shape		Panicle exertion (cm)		Glume coverage (%)		Shattering		Threshability%	
Serial number	ICSB number	Trait	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	
1	567	Srīga	6.3	10.3	72.2	56.9	7.3	6.0	30.2	23.9	7.6	6.0	3	3	3	3	9.3	14.7	25.0	25.0	1	1	1
2	568	Srīga	4.0	14.3	58.3	59.9	6.9	6.3	31.8	24.4	9.1	7.0	5	5	3	3	17.0	15.0	25.0	25.0	1	1	1
3	569	Srīga	10.0	12.7	75.2	61.9	8.7	6.0	30.7	23.1	7.3	5.2	7	7	3	3	11.0	13.3	62.5	25.0	1	1	1
4	571	Srīga	5.7	9.3	70.0	62.2	8.1	6.2	25.1	19.6	4.9	4.1	7	7	3	3	0.0	5.0	25.0	25.0	1	1	1
5	572	Srīga	6.7	13.0	70.7	57.8	7.6	5.9	25.9	23.0	5.6	5.3	7	7	3	3	5.0	9.3	25.0	25.0	1	1	1
6	584	Srīga	15.0	16.3	80.9	62.6	7.6	6.0	21.6	17.1	7.2	5.0	5	5	3	3	5.3	12.3	33.3	25.0	1	1	1
7	594	Srīga	10.3	13.3	67.7	64.7	7.4	6.9	26.7	22.1	6.8	4.6	5	7	3	3	9.7	12.3	33.3	25.0	1	1	1
8	598	Srīga	12.7	14.0	67.0	63.6	7.3	7.4	23.8	21.3	6.3	5.7	3	5	3	3	15.3	10.7	33.3	25.0	1	1	1
9	599	Srīga	8.3	13.3	74.0	56.9	8.2	7.1	27.1	19.8	7.4	6.2	5	5	3	3	1.7	10.0	25.0	25.0	1	1	1
10	671	Tillering	11.0	14.3	44.4	56.4	4.6	5.3	21.3	22.6	6.7	6.8	3	3	3	3	16.7	17.0	100.0	66.7	1	1	1
11	682	Stay green	5.7	14.7	53.9	48.9	6.9	5.6	31.7	27.1	10.1	7.4	3	5	3	3	8.0	13.0	33.3	41.7	1	1	1
Control																							
12	296B	High yield	6.3	13.0	74.3	55.9	8.6	6.4	32.4	24.2	6.1	4.8	7	7	3	3	0.0	4.3	25.0	25.0	1	1	1
Mean			9.40	13.08	67.28	57.73	7.39	6.19	27.49	22.67	7.64	6.16	-	-	-	-	8.38	12.48	41.85	33.33	-	-	-
SE ±			0.77	0.84	2.92	2.80	0.41	0.41	0.78	0.79	0.58	0.50	-	-	-	-	0.95	1.47	4.63	2.85	-	-	-
CV (%)			14.11	11.14	7.53	8.41	9.55	11.37	4.88	6.03	13.13	14.04	-	-	-	-	19.70	20.45	19.17	14.79	-	-	-
CD (5%)			2.25	2.28	8.60	8.12	1.20	1.17	2.28	2.20	1.70	1.63	-	-	-	-	2.80	3.62	13.89	10.89	-	-	-

		Trait number —▲		32	33	34	35	36	37	39	40	41	42	43		44		45		46		47								
Serial number	ICSB number	Grain form		Grain color	1000-grain mass (g)		Grain shape-dorsal view		Grain shape-profile view		Grain germ size		Endosperm texture		Albumen color		Grain lustre		Days to seedling emergence		Leaf glossy score		Seedling vigor score		Plant aspect score		Panicle yield (t ha ⁻¹)		Grain yield (t ha ⁻¹)	
		Rainy	Postrainy		Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy
1	567	<i>Striga</i>	1	1	8	27.15	3	3	7	5	3	1	4	6	3.0	2.3	2.0	1.3	2.0	2.7	3.8	2.8	2.9	1.9						
2	568	<i>Striga</i>	1	1	1	30.45	3	3	5	3	3	5	4	7	3.0	2.0	2.3	1.3	2.7	2.0	3.6	3.2	2.8	2.6						
3	569	<i>Striga</i>	1	1	1	30.90	2	2	5	3	3	7	4	7	2.3	3.3	3.0	2.3	1.5	2.0	4.9	4.2	3.9	3.6						
4	571	<i>Striga</i>	1	1	1	28.48	3	3	7	5	3	5	4	7	3.0	2.0	2.7	2.0	1.7	1.7	4.0	2.9	3.0	2.0						
5	572	<i>Striga</i>	1	1	1	30.20	3	3	5	3	3	7	5	7	3.0	2.0	2.3	1.3	2.3	1.7	3.8	4.1	2.7	3.3						
6	584	<i>Striga</i>	1	1	8	27.43	3	3	7	3	3	5	4	6	3.0	2.7	2.3	1.3	2.3	2.3	3.1	3.2	2.2	2.5						
7	594	<i>Striga</i>	1	1	1	25.45	3	3	7	3	3	5	4	7	3.3	3.0	2.3	2.0	3.3	2.0	2.8	3.4	2.1	2.8						
8	598	<i>Striga</i>	1	1	1	31.71	3	3	7	3	3	5	5	7	4.0	3.0	2.7	3.0	3.0	2.3	2.3	2.6	1.6	2.1						
9	599	<i>Striga</i>	1	1	1	28.82	3	3	5	3	3	5	6	7	3.0	2.3	2.3	2.7	3.0	2.3	3.9	2.6	2.8	2.1						
10	671	Tillering	1	1	1	27.74	2	2	5	3	3	5	5	7	3.3	2.3	2.3	3.0	3.3	3.0	2.0	2.5	1.1	2.1						
11	682	Stay green	1	1	8	25.77	3	3	5	3	3	1	7	8	3.7	3.0	2.7	3.7	2.3	2.7	3.7	2.0	2.8	1.3						
Control																														
12	296B	High yield	1	1	8	27.85	3	3	5	5	3	1	6	7	3.3	2.7	3.3	3.0	1.3	1.0	5.0	2.9	3.5	2.0						
Mean		-	-	-	-	28.21	-	-	-	-	-	-	5	7	3.12	2.56	2.50	2.06	2.61	2.10	3.53	3.17	2.62	2.49						
SE ±		-	-	-	-	1.11	-	-	-	-	-	-	0.44	0.23	0.29	0.32	0.28	0.26	0.28	0.35	0.25	0.31	0.21							
CV (%)		-	-	-	-	6.84	-	-	-	-	-	-	15.30	5.80	12.62	19.67	22.16	23.21	17.20	22.68	17.32	13.76	20.21	14.70						
CD (5%)		-	-	-	-	3.23	-	-	-	-	-	-	1.26	0.97	0.66	0.73	0.92	0.84	0.78	0.78	1.04	1.02	0.90	0.87						

Trait number →		48		49		50		51	
Serial number	ICSB number	Trait	Seed set % in A-line under high atmospheric temperature	Seed set % in A-line under open pollination		Plant color		Striga count	
				Post rainy	Postrainy	Post rainy	Postrainy	Post rainy	Postrainy
1	567	Striga	0	70	-	-	-	1	1
2	568	Striga	0	45	-	-	-	1	1
3	569	Striga	0	35	-	-	-	1	1
4	571	Striga	0	45	-	-	-	1	1
5	572	Striga	0	50	-	-	-	0	0
6	584	Striga	0	45	-	-	-	1	1
7	594	Striga	0	30	-	-	-	1	1
8	598	Striga	0	25	-	-	-	0	0
9	599	Striga	0	60	-	-	-	1	1
10	671	Tillering	0	10	Non tan	-	-	-	-
11	682	Stay green	0	30	Non tan	-	-	-	-
Control									
12	296B	High yield	-	-	-	-	-	-	-
Mean			-	-	-	-	-	-	-
SE ±			-	-	-	-	-	-	-
CV (%)			-	-	-	-	-	-	-
CD (5%)			-	-	-	-	-	-	-

Annexure I-7. Characteristics of stress tolerant (medium maturity) sorghum B-lines evaluated during the rainy and post rainy seasons, 2005 at ICRISAT-Patancheru.

Trait number →		1		2		3		4		5		6		7		8		9		10		
		Coleoptile color		Fifth leaf sheath color		Leaf midrib color		Days to 50% flowering		Plant height (m) at flowering		Flag leaf: Extension of discoloration of mid rib		Flag leaf: intensity of midrib compared to the blade		Flag leaf: yellow coloration of mid rib		Glume hair color		Lemma: arista formation		
Serial number	ICSB number	Trait	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
1	566	Striga	2	2	3	3	2	2	70	76	1.1	0.7	5	7	3	2	5	1	1	1	5	5
2	573	Striga	2	2	3	3	2	2	72	80	1.2	0.8	7	7	-	-	1	1	1	1	1	1
3	574	Striga	2	1	3	1	2	2	68	93	1.2	0.9	1	1	-	2	1	1	1	1	1	1
4	575	Striga	2	1	1	1	3	2	66	84	1.1	0.9	7	7	1	-	1	1	1	1	1	1
5	580	Striga	2	2	3	3	2	2	70	85	0.8	0.6	1	5	2	-	1	1	1	1	1	1
6	581	Striga	1	1	3	3	2	2	75	81	0.9	0.6	1	1	2	2	1	1	1	1	1	1
7	582	Striga	1	1	3	3	2	2	78	80	0.9	0.7	1	1	2	2	1	1	1	1	1	1
8	585	Striga	2	1	3	1	2	2	68	79	0.9	0.6	5	5	-	-	1	1	1	1	5	9
9	586	Striga	1	1	1	1	2	2	64	90	0.7	0.7	1	1	2	2	1	1	1	1	5	9
10	588	Striga	1	1	1	1	2	2	70	76	0.7	0.6	5	5	-	-	1	1	1	1	5	9
11	590	Striga	1	1	1	1	2	2	80	92	1.2	0.9	1	1	2	2	1	1	1	1	1	1
12	595	Striga	2	1	3	1	2	2	66	83	0.9	0.7	1	1	2	2	1	1	1	1	1	1
13	597	Striga	2	1	1	1	2	2	69	81	1.1	0.8	1	1	-	2	1	1	1	1	1	1
14	600	Acid	1	1	1	1	2	2	69	82	1.1	0.8	1	1	2	2	1	1	1	1	1	1
15	601	Acid	2	1	1	1	2	2	76	84	1.0	0.7	1	1	2	2	1	1	1	1	1	1
16	602	Acid	2	2	3	3	2	2	69	94	1.2	1.0	1	1	2	2	1	1	1	1	1	1
17	603	Acid	1	1	3	1	2	2	75	94	1.3	0.9	1	1	2	2	1	1	1	1	1	1
18	605	Acid	1	1	1	1	2	2	80	85	1.3	0.9	1	1	2	2	1	1	1	1	1	1
19	606	Acid	2	1	1	1	2	2	79	91	1.2	0.8	-	1	-	2	-	1	1	1	-	1
20	610	Acid	2	2	3	3	2	2	69	78	1.5	1.0	1	1	2	2	1	1	1	1	1	1
21	612	Acid	2	2	3	3	2	2	72	81	1.1	0.8	1	1	2	2	1	1	1	1	1	1
22	614	Acid	2	2	3	3	2	2	79	79	1.4	1.0	1	5	2	-	1	1	1	1	1	1
23	676	Stay green	2	2	3	3	2	2	72	85	1.0	0.7	1	5	2	-	1	1	1	1	1	1
24	679	Stay green	2	2	3	3	2	2	71	87	1.2	0.7	1	1	2	-	1	1	1	5	9	9
25	680	Stay green	2	2	3	3	2	2	68	79	1.9	1.3	1	5	2	-	1	1	1	1	1	1
26	685	Stay green	2	2	3	3	2	2	71	77	0.7	0.6	1	1	2	2	1	1	1	1	-	1
Control																						
27	296B	High yield	2	2	3	3	2	2	78	94	1.1	0.8	1	1	2	2	1	1	1	5	5	5
Mean			-	-	-	-	-	-	72	83	1.16	0.81	-	-	-	-	-	-	-	-	-	-
SE ±			-	-	-	-	-	-	1.38	1.82	0.06	0.04	-	-	-	-	-	-	-	-	-	-
CV (%)			-	-	-	-	-	-	3.33	3.80	8.67	7.46	-	-	-	-	-	-	-	-	-	-
CD (5%)			-	-	-	-	-	-	4.00	4.60	0.17	0.14	-	-	-	-	-	-	-	-	-	-

ACID- Acid Soil Tolerant.

Trait No. 1-41 : Traits stipulated in the DUS-test guidelines (Trait no 38 was not recorded in the current trials).

Trait No. 42-48 : Ancillary traits recorded in the current trials.

Trait No. 49-52 : Monitored traits recorded in various trials conducted earlier at ICRISAT.

Serial number	ICSB number	Trait	11		12		13		14		15		16		17		18		19		20		21	
			Stigma: anthocyanin coloration		Stigma: yellow coloration		Sigma length		Pedicellate flower length		Length of anther		Dried anther color		Glume color		Plant height (m) at maturity		Stem thickness (mm)		Juicy score		Brix reading (%)	
			Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
1	566	<i>Sruga</i>	1	1	1	1	9	9	3	3	5	5	6	4	6	5	1.5	1.0	15.8	13.2	1	1	12.7	14.3
2	573	<i>Sruga</i>	1	1	1	1	5	3	5	3	3	5	4	6	4	7	1.5	1.0	16.4	11.2	1	1	5.3	9.7
3	574	<i>Sruga</i>	1	1	1	1	5	5	5	5	5	5	4	4	2	2	1.6	1.2	17.9	19.1	1	1	8.0	15.0
4	575	<i>Sruga</i>	1	1	7	1	3	5	5	5	5	7	4	6	2	1	1.4	1.1	15.3	15.2	1	1	7.0	14.7
5	580	<i>Sruga</i>	1	1	1	1	5	5	5	5	3	3	4	4	5	5	1.1	0.9	16.7	15.6	1	1	14.0	14.0
6	581	<i>Sruga</i>	1	1	1	1	3	3	5	5	3	5	6	4	4	2	1.1	0.9	18.8	17.7	1	1	14.3	12.7
7	582	<i>Sruga</i>	1	1	1	1	5	3	3	3	3	3	4	4	4	2	1.3	1.0	17.1	17.5	1	1	16.3	12.0
8	585	<i>Sruga</i>	1	1	5	5	3	5	5	5	5	6	4	2	2	2	1.2	0.9	19.2	17.0	1	1	13.0	15.0
9	586	<i>Sruga</i>	1	1	5	1	5	5	5	5	7	5	7	4	2	2	1.0	0.9	19.4	21.0	1	1	17.7	11.3
10	588	<i>Sruga</i>	1	1	5	5	5	5	5	3	5	5	6	7	4	7	1.0	0.8	20.5	16.6	1	1	7.7	12.3
11	590	<i>Sruga</i>	1	1	1	1	3	5	5	5	5	3	4	4	4	2	1.7	1.3	18.4	16.4	1	1	11.3	15.7
12	595	<i>Sruga</i>	1	1	5	1	3	5	5	5	5	5	7	4	2	1	1.3	1.1	17.8	16.8	1	1	13.0	15.3
13	597	<i>Sruga</i>	1	1	1	1	5	5	5	5	5	3	4	4	4	7	1.4	1.0	15.7	17.3	1	1	7.0	12.0
14	600	Acid	1	1	5	1	5	5	5	5	5	5	4	4	7	8	1.4	1.1	22.6	14.8	1	1	10.0	13.3
15	601	Acid	1	1	5	1	3	3	5	3	3	5	4	4	4	7	1.4	1.1	18.8	15.7	1	1	8.0	15.0
16	602	Acid	1	1	1	1	3	3	5	5	5	5	6	4	4	5	1.6	1.3	18.1	17.1	1	1	11.3	17.0
17	603	Acid	1	1	5	1	3	3	5	5	5	3	4	4	5	5	1.6	1.2	18.4	18.6	1	1	15.0	12.3
18	605	Acid	1	1	5	1	5	3	5	3	5	3	6	4	4	5	1.7	1.1	20.0	18.9	1	1	10.7	11.3
19	606	Acid	-	1	-	1	-	3	-	3	-	5	-	4	-	5	1.5	1.0	19.9	18.7	-	1	14.0	14.3
20	610	Acid	1	1	5	1	3	5	5	5	3	5	6	6	4	2	1.8	1.3	17.8	15.5	1	1	11.0	15.0
21	612	Acid	1	1	1	1	3	3	5	5	5	5	6	4	4	7	1.4	1.1	15.7	15.7	1	1	9.0	15.3
22	614	Acid	1	1	5	1	5	5	5	5	3	5	4	7	6	2	1.6	1.2	19.1	15.9	1	1	16.7	14.7
23	676	Stay green	1	1	1	1	5	3	5	5	5	5	4	4	7	7	1.3	0.9	22.9	21.3	1	1	13.7	17.3
24	679	Stay green	1	1	1	1	9	5	5	5	5	5	4	4	2	2	1.4	0.8	19.1	18.4	1	1	13.3	15.0
25	680	Stay green	1	1	1	1	3	3	5	5	5	5	4	4	3	8	2.3	1.7	17.2	15.8	1	1	11.0	12.3
26	685	Stay green	1	1	7	1	5	5	5	5	5	5	4	7	2	2	1.0	0.8	17.0	15.2	-	1	19.5	14.7
Control																								
27	296B	High yield	1	1	1	1	5	5	5	5	5	5	4	4	2	2	1.4	1.0	22.4	20.5	1	1	6.7	16.0
Mean			-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.49	1.10	18.34	16.63	-	-	11.85	13.90
SE _±			-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.06	0.04	0.97	1.35	-	-	0.87	0.94
CV (%)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.54	5.92	9.18	14.06	-	-	12.73	11.78
CV (5%)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16	0.14	2.84	3.32	-	-	2.58	2.69

Serial number	ICSB number	Trait	22		23		24		25		26		27		28		29		30		31		32	
			Leaf length (cm)		Leaf width (cm)		Panicle length (cm)		Panicle branch length (cm)		Panicle compactness		Panicle shape		Panicle exertion (cm)		Glume coverage (%)		Shattering		Thresholdability%		Grain form	
			Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
1	566	<i>Striga</i>	78.2	58.8	8.0	5.6	28.1	24.1	8.0	7.3	5	7	3	3	4	5.7	10.0	25.0	1	1	1	1	1	1
2	573	<i>Striga</i>	73.7	56.2	7.4	5.4	27.7	21.0	6.3	4.4	5	7	3	3	3	1.3	6.0	25.0	1	1	1	1	1	1
3	574	<i>Striga</i>	69.0	64.3	8.3	6.2	29.7	21.0	8.3	6.2	5	7	3	3	3	10.3	15.7	25.0	1	1	1	1	1	1
4	575	<i>Striga</i>	72.9	55.4	9.4	6.9	26.3	18.1	6.7	3.8	5	7	3	3	3	8.0	10.3	33.3	1	1	1	1	1	1
5	580	<i>Striga</i>	69.2	55.6	7.4	6.2	22.7	19.2	5.6	5.6	7	7	3	3	3	10.7	14.0	41.7	1	1	1	1	1	1
6	581	<i>Striga</i>	71.8	56.0	8.0	6.2	30.3	21.8	5.7	5.3	5	7	3	3	3	6.7	10.3	25.0	1	1	1	1	1	1
7	582	<i>Striga</i>	67.7	59.1	7.4	6.2	30.0	22.1	7.1	6.3	5	5	3	3	3	7.3	8.7	33.3	1	1	1	1	1	1
8	585	<i>Striga</i>	80.0	66.2	8.3	6.1	28.3	22.9	6.8	6.3	7	7	3	3	3	10.7	7.3	33.3	1	1	1	1	1	1
9	586	<i>Striga</i>	66.7	67.9	8.3	8.1	26.3	26.8	8.1	7.8	5	5	3	3	3	5.0	5.7	33.3	1	1	1	1	1	1
10	588	<i>Striga</i>	75.0	63.9	7.4	6.2	26.4	22.0	5.5	5.9	7	7	3	3	3	7.7	9.7	25.0	1	1	1	1	1	1
11	590	<i>Striga</i>	63.7	58.9	7.6	6.8	26.3	24.6	5.6	6.1	7	7	3	3	3	18.0	19.3	25.0	1	1	1	1	1	1
12	595	<i>Striga</i>	66.9	65.0	7.1	6.6	28.8	21.6	7.4	4.8	5	5	3	3	3	17.0	19.0	25.0	1	1	1	1	1	1
13	597	<i>Striga</i>	78.7	69.3	7.7	6.9	26.0	21.8	6.5	5.9	5	5	3	3	3	4.7	8.3	33.3	1	1	1	1	1	1
14	600	<i>Acid</i>	79.9	64.0	8.8	7.1	33.1	23.9	7.2	5.0	5	7	3	3	3	5.0	10.3	33.3	1	1	1	1	1	1
15	601	<i>Acid</i>	66.0	62.0	7.7	6.0	34.4	26.0	8.2	7.1	5	7	3	3	3	13.7	20.7	25.0	1	1	1	1	1	1
16	602	<i>Acid</i>	69.3	58.0	7.8	6.0	30.8	28.2	8.1	7.4	5	3	3	3	3	5.0	7.3	33.3	1	1	1	1	1	1
17	603	<i>Acid</i>	82.8	69.1	7.7	5.6	26.3	21.7	7.8	5.9	7	5	3	3	3	4.0	7.0	25.0	1	1	1	1	1	1
18	605	<i>Acid</i>	74.2	67.8	8.4	7.0	25.7	22.1	5.3	4.8	7	7	3	3	3	3.0	5.3	25.0	1	1	1	1	1	1
19	606	<i>Acid</i>	70.8	62.0	7.8	6.7	24.2	20.1	5.9	4.9	-	7	3	3	3	6.5	6.3	25.0	1	1	1	1	1	1
20	610	<i>Acid</i>	71.6	60.8	8.1	7.1	30.9	25.6	8.2	6.0	5	5	3	3	3	5.3	8.7	25.0	1	1	1	1	1	1
21	612	<i>Acid</i>	69.2	57.0	7.3	5.9	28.9	21.6	5.5	5.2	5	7	3	3	3	10.0	14.3	33.3	1	1	1	1	1	1
22	614	<i>Acid</i>	68.4	58.7	8.0	6.6	26.2	22.1	6.0	5.9	7	7	3	3	3	4.0	6.7	25.0	1	1	1	1	1	1
23	676	<i>Stay green</i>	73.0	63.4	8.9	7.7	26.3	23.1	5.2	6.8	7	5	3	3	3	3.3	4.7	33.3	1	1	1	1	1	1
24	679	<i>Stay green</i>	68.2	58.6	8.6	7.6	29.0	23.0	7.6	7.2	5	7	3	3	3	1.0	1.0	25.0	1	1	1	1	1	1
25	680	<i>Stay green</i>	68.3	57.6	7.7	7.1	31.9	24.4	8.9	6.6	5	5	3	3	3	12.0	16.7	25.0	1	1	1	1	1	1
26	685	<i>Stay green</i>	67.8	53.1	7.0	5.8	27.3	21.3	6.3	6.3	5	5	3	3	3	4.7	7.0	25.0	1	1	1	1	1	1
Control																								
27	296B	<i>High yield</i>	79.0	60.4	8.8	6.7	33.3	24.8	5.7	5.4	7	7	3	3	3	2.0	2.7	25.0	1	1	1	1	1	1
Mean			71.06	60.32	7.94	6.46	27.59	22.03	6.80	5.93	-	-	-	-	-	7.39	9.59	29.50	-	-	-	-	-	-
SE ±			2.97	2.53	0.38	0.34	1.10	0.89	0.55	0.53	-	-	-	-	-	0.70	0.78	5.06	-	-	-	-	-	-
CV (%)			7.25	7.27	8.39	9.10	6.91	7.03	14.01	15.50	-	-	-	-	-	16.29	14.14	29.71	-	-	-	-	-	-
CD (5%)			8.67	8.06	1.12	1.04	3.21	2.88	1.60	1.53	-	-	-	-	-	1.99	2.09	14.52	-	-	-	-	-	-

Serial number		Trait number →		33	34	35	36	37	39	40	41	42	43	44	45	46	47		
		ICSB number	Trait	Grain color	1000-grain mass (g)	Grain shape- dorsal view	Grain shape- profile view	Grain germ size	Endosperm texture	Albumen color	Grain lustre	Days to seedling emergence	Leaf glossy score	Seedling vigor score	Plant aspect score	Panicle yield (t ha ⁻¹)	Grain yield (t ha ⁻¹)		
				Posrainy	Posrainy	Posrainy	Posrainy	Posrainy	Posrainy	Posrainy	Posrainy	Rainy	Posrainy	Rainy	Posrainy	Rainy	Posrainy		
1	566	<i>Sriga</i>	8	30.36	3	3	3	5	5	3	1	5	7	2.7	2.3	4.4	2.9	3.2	2.3
2	573	<i>Sriga</i>	1	29.97	3	3	3	5	3	3	5	4	7	2.7	2.0	4.2	3.5	3.1	2.4
3	574	<i>Sriga</i>	8	24.13	3	3	3	5	3	3	1	4	7	2.3	2.7	4.1	2.7	3.0	2.1
4	575	<i>Sriga</i>	1	32.77	3	3	3	5	3	3	5	4	6	3.0	2.7	3.9	3.4	2.8	2.8
5	580	<i>Sriga</i>	1	24.19	3	3	3	7	3	3	5	4	7	2.7	2.7	2.3	2.2	1.7	1.9
6	581	<i>Sriga</i>	1	22.73	3	3	3	5	3	3	5	4	7	3.0	2.3	2.6	2.1	1.7	1.7
7	582	<i>Sriga</i>	1	25.73	3	3	3	7	3	3	5	4	7	2.7	2.7	2.5	2.3	1.7	1.7
8	585	<i>Sriga</i>	8	32.26	3	3	3	5	7	3	7	4	7	2.3	2.7	3.6	3.2	2.6	2.6
9	586	<i>Sriga</i>	1	24.79	3	3	3	5	3	3	5	7	8	3.0	3.7	2.1	1.8	1.1	0.8
10	588	<i>Sriga</i>	8	31.38	3	3	3	7	5	3	1	5	7	2.7	2.0	3.2	3.1	2.1	2.4
11	590	<i>Sriga</i>	1	26.74	3	3	3	5	5	3	1	5	7	2.7	2.7	3.1	3.1	2.2	2.4
12	595	<i>Sriga</i>	1	32.31	3	3	3	7	5	3	5	6	7	3.0	2.3	3.9	2.9	2.9	2.4
13	597	<i>Sriga</i>	1	30.24	3	3	3	7	3	3	5	5	7	3.0	2.7	3.8	4.4	2.9	3.6
14	600	Acid	1	31.62	3	3	3	7	3	3	5	4	7	3.0	2.0	4.2	4.5	3.2	3.4
15	601	Acid	1	33.59	3	3	3	5	3	3	5	5	7	3.0	2.7	5.0	3.6	4.1	2.9
16	602	Acid	1	29.24	3	3	3	5	3	3	5	4	7	3.0	2.3	4.8	3.9	3.6	3.1
17	603	Acid	1	30.13	3	3	3	5	3	3	7	4	7	3.0	2.7	4.2	4.8	3.1	4.2
18	605	Acid	1	32.26	3	3	3	5	5	3	5	4	7	2.0	1.3	5.7	5.3	4.4	4.5
19	606	Acid	1	27.74	3	3	3	5	5	3	5	4	7	2.7	2.0	3.6	4.0	2.6	3.2
20	610	Acid	1	32.52	3	3	3	5	3	3	5	4	6	2.7	2.7	4.6	4.4	3.0	3.6
21	612	Acid	8	24.88	3	3	3	5	3	3	1	5	7	2.7	3.0	3.3	1.9	2.3	1.4
22	614	Acid	8	35.45	3	3	3	5	5	3	5	5	7	3.0	1.3	5.5	3.6	4.3	2.8
23	676	Slay green	1	34.89	3	3	3	5	3	3	5	6	7	3.0	2.0	4.1	3.2	2.8	2.3
24	679	Slay green	8	29.48	3	3	3	7	5	3	1	6	8	3.0	3.0	3.6	2.3	2.3	1.5
25	680	Slay green	1	36.41	3	3	3	7	5	3	5	6	7	2.7	2.0	5.3	3.7	4.2	3.0
26	685	Slay green	1	26.50	3	3	3	7	3	3	5	5	7	3.3	3.0	2.7	2.3	1.6	1.9
Control																			
27	296B	High yield	8	29.93	3	3	3	7	5	3	1	7	8	3.3	2.0	4.8	3.5	3.4	2.4
Mean			-	29.74	-	-	-	-	-	-	-	5	7	2.79	2.29	3.79	3.21	2.77	2.51
SE ±			-	0.80	-	-	-	-	-	-	-	0.33	0.21	0.27	0.29	0.42	0.29	0.34	0.23
CV (%)			-	4.67	-	-	-	-	-	-	-	12.02	5.35	16.66	21.94	21.87	15.64	21.32	15.55
CD (5%)			-	2.27	-	-	-	-	-	-	-	0.93	0.80	0.76	0.83	0.84	0.79	0.97	0.95

Serial number	Trait number →		48	49	50	51	52
	ICSB number	Trait					
1	566	<i>Striga</i>	0	15	-	1	-
2	573	<i>Striga</i>	0	60	-	1	-
3	574	<i>Striga</i>	0	45	-	1	-
4	575	<i>Striga</i>	0	75	-	1	-
5	580	<i>Striga</i>	0	55	-	1	-
6	581	<i>Striga</i>	40	25	-	1	-
7	582	<i>Striga</i>	0	30	-	1	-
8	585	<i>Striga</i>	0	70	-	0	-
9	586	<i>Striga</i>	0	35	-	1	-
10	588	<i>Striga</i>	0	60	-	1	-
11	590	<i>Striga</i>	15	15	-	1	-
12	595	<i>Striga</i>	0	30	-	1	-
13	597	<i>Striga</i>	0	-	-	-	-
14	600	Acid	0	-	-	-	2.7
15	601	Acid	0	-	-	-	2.7
16	602	Acid	0	-	-	-	2.7
17	603	Acid	0	-	-	-	2.3
18	605	Acid	0	-	-	-	1.0
19	606	Acid	10	-	-	-	1.7
20	610	Acid	0	-	-	-	2.3
21	612	Acid	0	-	-	-	2.3
22	614	Acid	0	-	-	-	1.7
23	676	Stay green	0	65	Non tan	-	-
24	679	Stay green	0	70	Tan	-	-
25	680	Stay green	0	-	Non tan	-	-
26	685	Stay green	0	70	Tan	-	-
Control							
27	296B	High yield	-	-	-	-	-
Mean			-	-	-	-	-
SE ±			-	-	-	-	-
CV (%)			-	-	-	-	-
CD (5%)			-	-	-	-	-

Annexure I-8. Characteristics of non-milo sorghum B-lines evaluated during the rainy and post-rainy seasons, 2005 at ICRISAT-Patancheru.

Serial number	ICSB number	Trait number →		1		2		3		4		5		6		7		8		9		10	
		Trait	→	Coloepile color		Fifth leaf sheath color		Leaf midrib color		Days to 50% flowering		Plant height (m) at flowering		Flag leaf: Extension of discoloration of mid rib		Flag leaf: intensity of green coloration of midrib compared to the blade		Flag leaf: yellow coloration of mid rib		Glume hair color		Lemma: arista formation	
				Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy
1	688	A2		2	2	3	3	2	2	66	74	1.3	0.9	1	1	2	2	1	1	1	1	1	1
2	694	A2		1	1	1	1	2	2	65	80	0.9	0.7	1	1	2	2	1	1	1	1	1	1
3	696	A2		1	1	3	1	2	2	80	94	1.0	0.8	1	1	2	2	1	1	1	1	1	1
4	698	A2		2	2	3	3	2	2	70	77	1.1	0.9	1	1	2	2	1	1	1	1	3	3
5	700	A2		2	2	3	3	2	2	68	84	1.1	0.8	1	1	-	2	1	1	1	1	1	1
6	701	A2		1	1	1	1	2	2	73	89	1.0	0.7	1	1	2	2	1	1	1	1	1	1
7	705	A2		1	1	1	1	2	2	67	80	0.9	0.7	1	1	2	2	1	1	1	1	1	1
8	706	A2		1	1	1	1	2	2	67	74	0.9	0.6	1	5	2	2	1	1	1	1	1	1
9	708	A2		1	1	1	1	2	2	68	83	1.1	0.8	1	1	2	2	1	1	1	1	1	1
10	710	A2		1	1	1	1	2	2	75	97	1.2	0.8	3	1	2	2	1	1	1	1	1	3
11	714	A2		2	2	3	3	2	2	73	78	1.5	0.9	1	1	2	2	1	1	1	1	1	1
12	718	A2		1	1	1	1	2	2	70	83	1.1	0.7	1	7	2	2	1	1	1	1	1	1
13	719	A2		1	1	1	1	2	2	72	83	0.9	0.7	5	1	-	-	1	1	1	1	1	1
14	720	A2		1	1	1	1	2	2	72	89	0.8	0.7	3	7	-	-	1	1	1	1	1	1
15	721	A2		1	1	1	1	2	2	85	96	1.7	1.0	1	1	2	2	1	1	1	1	1	1
16	722	A2		1	1	1	1	2	2	85	98	1.7	1.0	1	1	2	2	1	1	1	1	1	1
17	723	A2		1	1	1	1	2	2	72	96	0.8	0.8	1	1	2	2	1	1	1	1	1	1
18	728	A2		2	2	3	3	3	2	68	90	1.4	0.9	7	7	-	-	1	1	1	1	1	1
19	732	A2		1	1	1	1	2	2	73	80	1.5	0.9	1	7	2	2	1	1	1	1	1	1
20	737	A2		2	2	3	3	2	2	76	80	1.2	0.9	1	1	2	2	1	1	1	1	1	1
21	740	A3		1	1	1	1	2	2	71	88	1.6	1.1	1	1	2	2	1	1	1	1	1	1
22	741	A3		1	1	1	1	2	2	68	84	1.5	1.0	1	5	2	2	1	1	1	1	1	1
23	742	A3		1	1	1	1	2	2	79	95	1.1	0.8	1	1	2	2	1	1	1	1	1	1
24	743	A3		1	1	1	1	2	2	73	80	1.1	0.7	1	1	2	2	1	1	1	1	1	1
25	748	A3		1	1	1	1	2	2	72	84	1.5	1.0	1	1	2	2	1	1	1	1	1	1
26	752	A3		2	2	3	3	2	2	68	83	1.1	0.8	1	5	2	2	1	1	1	1	1	1
27	754	A3		1	1	1	1	2	2	78	79	1.7	1.0	1	5	2	2	1	1	1	1	1	1
28	755	A3		2	2	1	3	2	2	68	86	1.1	0.8	1	1	2	2	1	1	1	1	1	1
29	756	A4		2	2	3	3	2	2	70	77	1.1	0.8	1	1	2	2	1	1	1	1	1	1
30	760	A4		1	1	1	1	2	2	74	82	1.1	0.7	1	1	2	2	1	1	1	1	1	1
31	763	A4		1	1	1	1	3	2	73	86	1.3	0.9	7	7	-	-	1	1	1	1	1	1
32	767	A4		2	2	3	3	2	2	75	85	1.2	0.8	1	1	-	2	1	1	1	1	1	1
Control																							
33	296 B	High yield		2	2	3	3	2	2	78	96	1.1	0.8	1	1	2	2	1	1	1	1	5	5
Mean				-	-	-	-	-	-	72	84	1.22	0.84	-	-	-	-	-	-	-	-	-	-
SE ±				-	-	-	-	-	-	0.82	1.43	0.05	0.04	-	-	-	-	-	-	-	-	-	-
CV (%)				-	-	-	-	-	-	1.96	2.95	7.08	7.85	-	-	-	-	-	-	-	-	-	-
CD (5%)				-	-	-	-	-	-	2.37	3.43	0.14	0.13	-	-	-	-	-	-	-	-	-	-

A₁ A₂ A₃ A₄ - Corresponding A-lines on A₁, A₂, A₃ & A₄ cytoplasmic background respectively.

Trait No. 1-41 : Traits stipulated in the DUS-test guidelines (Trait no 38 was not recorded in the current trials).

Trait No. 42-48 : Ancillary traits recorded in the current trials.

Trait No. 49-50 : Monitored traits recorded in various trials conducted earlier at ICRISAT.

Serial number	ICSB number	Trait	11		12		13		14		15		16		17		18		19		20		21	
			Stigma: anthocyanin coloration		Stigma: yellow coloration		Stigma length		Pedicellate flower length		Length of anther		Dried anther color		Glume color		Plant height (m) at maturity		Stem thickness (mm)		Juicy score		Brix reading (%)	
			Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy
1	688	A2	1	1	1	7	9	3	5	5	5	5	6	4	5	5	1.7	1.2	17.8	14.8	1	1	4.3	9.3
2	694	A2	1	1	1	7	5	3	5	5	5	7	7	7	8	8	1.3	1.1	17.7	16.5	1	1	5.3	11.0
3	696	A2	1	1	1	5	5	7	7	5	5	4	4	4	2	2	1.3	1.1	20.8	18.3	1	2	15.3	11.3
4	698	A2	1	1	1	1	5	5	3	5	5	6	6	6	2	2	1.3	1.1	16.3	13.4	1	1	9.3	10.0
5	700	A2	1	1	1	7	5	5	5	5	3	7	7	7	7	7	1.1	1.0	17.2	16.4	1	1	13.3	14.3
6	701	A2	1	1	1	5	5	5	3	5	5	4	4	4	2	2	1.3	0.9	16.7	16.1	1	1	18.0	16.0
7	705	A2	1	1	1	5	5	5	5	5	5	7	7	7	4	5	1.2	0.9	15.4	14.7	1	1	17.3	15.7
8	706	A2	1	1	1	7	5	5	5	5	5	7	7	7	2	2	1.1	0.9	18.1	16.2	1	1	13.0	13.7
9	708	A2	1	1	1	7	5	5	5	5	3	4	4	4	4	2	1.3	1.1	17.9	15.9	1	1	6.3	15.0
10	710	A2	1	1	1	5	5	5	5	5	3	4	4	4	2	2	1.5	1.1	20.8	21.5	-	1	7.0	13.0
11	714	A2	1	1	1	1	5	5	5	5	3	4	4	4	4	2	1.8	1.3	18.8	14.2	1	1	8.0	16.0
12	718	A2	1	1	1	1	5	5	7	5	7	6	6	6	5	5	1.4	1.0	20.8	18.9	1	1	11.3	15.3
13	719	A2	1	1	1	5	5	5	5	5	3	4	4	4	4	5	1.2	1.0	20.8	18.4	1	1	6.3	14.0
14	720	A2	1	1	1	5	5	5	3	5	3	4	4	4	4	5	1.1	1.0	19.6	18.1	1	1	6.7	12.3
15	721	A2	1	1	1	1	3	3	7	5	5	6	4	4	4	4	1.9	1.2	21.2	17.3	1	1	12.3	16.7
16	722	A2	1	1	1	1	3	3	5	5	7	4	4	4	4	4	1.9	1.3	19.6	18.8	1	1	14.0	17.3
17	723	A2	1	1	1	5	1	3	3	5	3	6	4	4	5	5	1.2	1.1	19.8	18.3	1	1	9.0	17.3
18	728	A2	1	1	1	5	3	3	5	3	5	4	4	4	4	5	1.7	1.2	14.8	15.5	2	1	12.7	14.0
19	732	A2	1	1	1	5	3	3	5	5	3	6	6	6	2	2	1.8	1.2	19.0	16.3	1	1	15.3	14.7
20	737	A2	1	1	1	5	3	3	5	3	3	4	4	4	2	2	1.6	1.1	22.5	15.9	1	1	15.7	17.7
21	740	A3	1	1	1	5	3	5	7	5	5	6	6	6	2	2	2.0	1.5	20.3	19.5	1	2	10.7	12.7
22	741	A3	1	1	1	5	3	3	5	5	5	6	4	4	4	5	1.8	1.2	19.1	16.9	2	2	6.0	13.3
23	742	A3	1	1	1	5	3	3	5	5	5	6	4	4	2	2	1.4	1.1	22.3	17.0	1	2	14.3	9.7
24	743	A3	1	1	1	5	3	3	5	3	5	6	6	6	2	2	1.5	1.3	18.3	15.9	1	2	13.0	14.0
25	748	A3	1	1	1	7	5	5	5	5	5	6	6	6	4	2	2.0	1.4	18.2	15.8	1	1	5.3	14.0
26	752	A3	1	1	1	1	5	5	7	5	5	7	4	4	4	5	1.5	1.0	19.3	19.5	1	1	6.7	12.7
27	754	A3	1	1	1	1	3	3	5	5	5	4	6	4	4	2	1.9	1.3	19.7	14.7	1	1	13.3	16.0
28	755	A3	1	1	1	5	5	5	5	3	5	7	4	4	4	5	1.5	1.1	18.2	15.8	1	1	11.7	17.7
29	756	A4	1	1	1	5	5	5	7	3	5	6	6	6	1	2	1.4	1.1	17.6	16.6	1	2	5.7	16.3
30	760	A4	1	1	1	5	3	3	3	3	5	6	6	6	4	2	1.6	1.2	19.6	15.4	1	1	14.0	14.0
31	763	A4	1	1	1	5	3	3	7	7	5	4	6	4	5	5	1.6	1.1	17.9	13.7	2	1	13.0	14.3
32	767	A4	1	1	1	5	3	5	5	5	5	4	4	4	4	5	1.6	1.0	19.4	17.9	1	1	14.7	13.3
Control																								
33	296 B	High yield	1	1	1	1	9	5	5	5	3	4	4	4	2	2	1.3	1.0	21.7	18.4	1	1	13.0	16.0
Mean			-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.52	1.13	19.18	16.47	-	-	11.17	14.08
SE ±			-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.05	0.04	0.85	0.82	-	-	0.87	1.25
CV (%)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.21	5.90	7.68	8.57	-	-	13.50	15.35
CD (5%)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.13	0.12	2.45	2.50	-	-	2.52	3.08

Serial number	ICSB number	Trait	22		23		24		25		26		27		28		29		30		31		32	
			Leaf length (cm)		Leaf width (cm)		Panicke length (cm)		Panicke branch length (cm)		Panicke compactness		Panicke shape		Panicke exertion (cm)		Glume coverage (%)		Shattering		Thresholdity%		Grain form	
			Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
1	688	A2	66.9	60.4	8.0	6.1	25.2	20.6	6.6	5.7	5	5	3	3	8.7	15.0	33.3	25.0	1	1	1	1	1	1
2	694	A2	63.0	60.6	7.4	7.6	28.3	23.0	7.5	8.0	5	5	3	3	10.7	15.0	25.0	25.0	1	1	1	1	1	1
3	696	A2	71.4	63.7	8.6	6.8	30.0	26.0	7.6	6.9	5	7	3	3	5.0	11.0	25.0	25.0	1	1	1	1	1	1
4	698	A2	69.0	58.3	7.8	5.8	27.0	22.2	8.2	8.0	5	5	3	3	1.0	5.7	25.0	25.0	1	1	1	1	1	1
5	700	A2	71.3	63.3	8.0	6.8	27.9	22.6	8.9	6.7	5	7	3	3	11.7	15.7	25.0	25.0	1	1	1	1	1	1
6	701	A2	63.9	52.0	7.7	6.7	22.0	16.1	5.2	4.1	7	7	4	4	4.0	6.0	25.0	25.0	1	1	1	1	1	1
7	705	A2	63.0	60.9	7.3	7.0	23.3	19.1	4.5	5.8	7	7	3	3	6.7	6.7	25.0	25.0	1	1	1	1	1	1
8	706	A2	68.1	57.7	8.4	7.4	22.1	17.7	4.9	5.2	7	7	3	3	1.7	5.7	25.0	33.3	1	1	1	1	1	1
9	708	A2	74.4	71.2	9.0	8.4	25.2	21.6	8.4	7.3	5	7	3	3	0.0	4.7	25.0	25.0	1	1	1	1	1	1
10	710	A2	71.1	68.3	8.1	7.0	29.7	25.0	8.0	7.4	7	7	3	3	13.3	11.3	25.0	25.0	1	1	1	1	1	1
11	714	A2	75.9	59.3	7.9	5.8	27.6	22.1	9.0	5.6	5	5	3	3	10.0	19.0	41.7	25.0	1	1	1	1	1	1
12	718	A2	69.2	58.3	8.7	6.8	26.6	21.0	7.1	6.0	5	5	3	3	6.3	10.0	25.0	25.0	1	1	1	1	1	1
13	719	A2	63.1	57.8	7.8	7.6	25.2	20.7	7.3	7.3	7	7	3	3	12.3	12.3	25.0	25.0	1	1	1	1	1	1
14	720	A2	64.1	53.7	7.6	6.4	21.9	18.6	6.7	6.4	7	7	3	3	12.0	14.3	25.0	25.0	1	1	1	1	1	1
15	721	A2	72.3	64.8	8.4	7.1	26.3	20.2	6.5	4.7	7	7	3	3	5.0	6.0	25.0	33.3	1	1	1	1	1	1
16	722	A2	73.8	66.0	9.1	6.7	26.0	23.7	6.1	5.4	7	7	3	3	3.0	5.7	33.3	25.0	1	1	1	1	1	1
17	723	A2	64.3	56.2	7.6	6.3	24.3	21.0	7.1	6.7	7	7	3	3	14.3	13.3	25.0	25.0	1	1	1	1	1	1
18	728	A2	74.3	59.7	8.1	6.8	24.8	18.2	6.6	4.6	5	7	3	3	6.0	6.3	33.3	33.3	1	1	1	1	1	1
19	732	A2	69.2	59.2	8.6	7.9	26.8	20.8	6.3	5.4	7	7	3	3	7.7	6.3	25.0	41.7	1	1	1	1	1	1
20	737	A2	71.2	56.8	9.1	6.3	28.7	20.9	7.6	6.3	7	5	3	3	1.0	6.3	25.0	25.0	1	1	1	1	1	1
21	740	A3	65.7	58.8	7.9	6.7	28.9	24.8	6.7	6.2	5	7	3	3	8.7	18.7	33.3	33.3	1	1	1	1	1	1
22	741	A3	61.8	65.2	8.1	7.1	31.1	25.0	8.2	6.8	5	7	3	3	4.3	10.7	25.0	25.0	1	1	1	1	1	1
23	742	A3	69.8	56.8	9.3	6.2	29.6	22.9	8.2	5.6	7	7	3	3	3.7	13.3	25.0	25.0	1	1	1	1	1	1
24	743	A3	67.4	66.2	7.6	7.2	34.8	29.9	10.7	13.0	5	5	3	3	11.3	25.0	25.0	25.0	1	1	1	1	1	1
25	748	A3	74.0	58.1	7.7	6.3	33.7	26.0	8.7	6.4	5	5	3	3	18.7	19.3	41.7	33.3	1	1	1	1	1	1
26	752	A3	68.2	57.7	8.6	6.9	27.2	21.3	7.1	7.1	5	5	3	3	11.3	13.0	25.0	25.0	1	1	1	1	1	1
27	754	A3	78.8	62.6	8.9	6.9	29.6	23.4	7.6	7.0	7	5	3	3	6.0	8.7	25.0	25.0	1	1	1	1	1	1
28	755	A3	69.0	59.9	7.9	5.8	24.8	18.1	6.8	5.1	7	7	3	3	9.7	11.7	25.0	25.0	1	1	1	1	1	1
29	756	A4	68.9	62.6	7.6	6.2	23.6	19.9	5.6	5.4	5	7	3	3	6.3	12.0	41.7	41.7	1	1	1	1	1	1
30	760	A4	74.6	70.5	7.9	7.7	35.1	27.8	10.3	13.0	5	5	3	3	10.0	25.0	25.0	25.0	1	1	1	1	1	1
31	763	A4	66.7	55.8	7.7	5.9	28.4	23.1	10.2	7.3	3	5	3	3	4.3	3.3	100.0	75.0	1	1	1	1	1	1
32	767	A4	73.9	62.2	8.3	7.7	28.8	21.2	8.7	5.7	7	7	3	3	7.7	9.3	25.0	25.0	1	1	1	1	1	1
Control																								
33	296 B	High yield	65.1	59.6	8.2	6.6	30.2	24.8	5.4	6.0	7	7	3	3	9.0	8.0	25.0	25.0	1	1	1	1	1	1
Mean			69.49	60.22	8.16	6.78	27.09	21.77	7.38	6.45	-	-	-	-	7.47	10.71	31.03	29.82	-	-	-	-	-	-
SE ±			2.75	2.38	0.37	0.32	0.94	0.88	0.43	0.57	-	-	-	-	0.86	1.10	3.93	3.68	-	-	-	-	-	-
CV (%)			6.87	6.84	7.83	8.25	6.03	7.04	10.21	15.34	-	-	-	-	19.88	17.73	21.96	21.36	-	-	-	-	-	-
CD (5%)			7.92	7.36	1.06	0.99	2.71	2.60	1.25	1.47	-	-	-	-	2.48	2.82	11.47	11.12	-	-	-	-	-	-

Trait number →		33	34	35	36	37	39	40	41	42	43	44	45	46	47							
Serial number	ICSB number	Trait	Grain color texture	1000-grain mass (g)	Grain shape-dorsal view	Grain shape-profile view	Grain germ size	Endosperm texture	Albumen color	Grain lustre	Days to seedling emergence		Leaf glossy score		Seedling vigor score		Plant aspect score		Panicle yield (t ha ⁻¹)		Grain yield (t ha ⁻¹)	
											Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy
1	688	A2	8	38.76	3	3	7	5	3	7	2.3	2.7	2.0	2.0	4.4	3.6	3.2	2.8				
2	694	A2	5	32.63	3	3	7	5	3	5	2.7	2.7	3.0	1.7	4.2	4.2	3.3	3.7				
3	696	A2	8	29.19	3	3	5	3	3	5	2.7	2.7	3.0	2.7	4.2	4.6	3.3	3.4				
4	698	A2	8	29.26	3	3	5	5	3	7	1.3	1.0	3.0	3.0	3.6	2.9	2.7	2.3				
5	700	A2	5	31.44	3	3	7	5	4	1	3.0	3.0	2.7	2.7	4.1	3.3	3.1	2.8				
6	701	A2	8	28.57	3	3	5	3	3	5	1.3	1.7	3.0	3.0	3.9	3.1	2.9	2.5				
7	705	A2	8	25.47	3	3	5	3	3	7	3.0	2.7	2.3	2.0	3.2	3.4	2.4	2.7				
8	706	A2	8	29.26	3	3	5	3	3	7	2.0	2.3	2.0	1.7	4.2	3.0	3.2	2.5				
9	708	A2	8	28.74	3	3	7	3	3	5	3.3	3.0	2.3	1.3	4.7	5.5	3.4	4.4				
10	710	A2	8	26.75	3	3	5	5	3	1	3.3	3.0	4.0	4.7	4.1	2.1	3.1	1.5				
11	714	A2	8	25.29	3	3	7	3	3	7	3.0	3.0	2.3	2.0	5.4	3.2	4.4	2.8				
12	718	A2	8	37.93	3	3	7	5	3	5	2.3	2.7	2.3	1.7	3.9	3.8	2.8	2.9				
13	719	A2	8	28.54	3	3	5	5	3	7	2.7	2.7	2.7	2.0	5.1	5.6	3.4	4.7				
14	720	A2	8	25.63	3	3	5	5	3	5	3.0	3.0	2.7	2.3	2.5	3.0	1.8	2.4				
15	721	A2	1	25.23	3	3	5	3	3	5	3.0	2.7	2.3	2.0	3.7	3.6	2.7	2.8				
16	722	A2	8	24.96	3	3	5	3	3	5	3.0	2.7	2.3	2.7	2.5	4.0	1.8	3.2				
17	723	A2	8	27.67	3	3	5	5	3	5	2.7	2.3	3.0	2.0	2.5	4.3	1.7	3.4				
18	728	A2	8	28.25	3	3	5	3	3	5	2.7	2.7	2.7	2.3	4.8	2.2	3.9	1.8				
19	732	A2	8	27.39	3	3	5	5	3	7	3.3	2.7	3.0	2.3	6.2	5.3	4.8	4.3				
20	737	A2	8	31.51	3	3	7	5	3	5	2.3	2.7	2.3	1.7	5.9	3.0	3.5	2.9				
21	740	A3	1	35.03	3	3	7	3	3	7	2.3	2.7	2.3	2.7	4.6	4.4	3.5	3.6				
22	741	A3	8	31.19	3	3	5	3	3	5	3.0	3.0	2.7	2.3	4.6	5.0	3.5	4.2				
23	742	A3	8	29.45	3	3	5	3	3	5	3.3	2.0	3.0	2.7	4.9	4.7	3.8	3.9				
24	743	A3	8	29.53	3	3	5	3	3	7	3.0	3.3	2.7	2.3	5.2	5.4	4.2	4.6				
25	748	A3	1	31.12	3	3	7	3	3	5	2.3	2.3	2.3	2.0	5.0	4.0	4.1	3.4				
26	752	A3	8	36.63	3	3	5	5	3	5	2.3	2.7	2.0	2.0	3.4	3.6	2.5	3.0				
27	754	A3	8	28.92	3	3	5	3	3	7	4	6	2.0	1.3	6.0	5.4	4.5	4.5				
28	755	A3	4	28.41	3	3	5	3	3	1	2.3	1.7	3.0	2.7	3.7	3.0	2.7	2.4				
29	756	A4	8	34.66	3	3	7	3	3	7	3.0	1.3	2.0	2.3	4.1	4.2	3.1	3.2				
30	760	A4	8	30.42	3	3	5	3	3	7	2.7	2.0	3.0	1.7	4.9	4.7	4.1	4.1				
31	763	A4	8	23.36	2	2	3	3	3	7	2.3	2.0	3.0	2.0	4.8	2.8	3.7	2.2				
32	767	A4	8	35.19	3	3	7	3	3	7	2.3	2.0	2.3	1.3	4.8	6.1	3.7	4.8				
Control																						
33	296 B	High yield	4	27.85	3	3	7	5	3	1	3.0	3.0	3.0	1.7	4.7	3.3	3.3	2.3				
Mean			-	29.87	-	-	-	-	-	-	2.66	2.48	2.61	2.24	4.36	3.94	3.28	3.21				
SE±			-	1.30	-	-	-	-	-	-	0.26	0.26	0.23	0.26	0.52	0.24	0.46	0.22				
CV (%)			-	7.55	-	-	-	-	-	-	16.86	18.49	15.09	20.50	20.54	10.53	24.54	11.83				
CD (5%)			-	3.65	-	-	-	-	-	-	0.74	0.76	0.65	0.70	1.48	1.33	1.33	1.20				

Serial number	ICSB number	Trait	Trait number →		Seed set % in A-line under high atmospheric temperature	Seed set % in A-line under open pollination	Plant color
1	688	A2			0	25	Non tan
2	694	A2			0	60	Non tan
3	696	A2			0	55	Tan
4	698	A2			0	75	Tan
5	700	A2			0	80	Non tan
6	701	A2			0	30	Tan
7	705	A2			0	90	Tan
8	706	A2			0	90	Tan
9	708	A2			0	20	Tan
10	710	A2			0	35	Tan
11	714	A2			5	80	Tan
12	718	A2			0	-	Non tan
13	719	A2			0	25	Tan
14	720	A2			5	90	Tan
15	721	A2			0	10	Tan
16	722	A2			0	20	Tan
17	723	A2			15	55	Tan
18	728	A2			0	60	Tan
19	732	A2			0	85	Tan
20	737	A2			0	60	Tan
21	740	A3			0	60	Tan
22	741	A3			0	50	Tan
23	742	A3			0	50	Tan
24	743	A3			0	80	Tan
25	748	A3			0	75	Tan
26	752	A3			0	30	Non tan
27	754	A3			0	55	Tan
28	755	A3			0	60	Tan
29	756	A4			0	55	Non tan
30	760	A4			0	15	Tan
31	763	A4			10	-	Tan
32	767	A4			0	-	Tan
Control							
33	296 B	High yield			-	-	-
Mean					-	-	-
SE _±					-	-	-
CV (%)					-	-	-
CD (5%)					-	-	-

Annexure I-9. Characteristics of pest resistant (early maturity) sorghum B-lines evaluated during the rainy and postrainy seasons, 2005 at ICRISAT-Patancheru.

Annexure 1-2: Characteristics of post-rainy/origami D-rice varieties during the rainy and post-rainy seasons, 2002 at ICARDA and ICAR																							
Serial number	ICSB number	Trait number →		1		2		3		4		5		6		7		8		9		10	
		Coleoptile color		Fifth leaf sheath color		Leaf midrib color		Days to 50% flowering		Plant height (m) at flowering		Flag leaf: Extension of discoloration of mid rib		Flag leaf: intensity of midrib compared to the blade		Flag leaf: yellow coloration of midrib		Glume hair color		Lemma: arista formation			
		Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy		
1	462	SFPR	2	1	3	3	2	2	68	79	1.3	0.9	1	1	2	2	1	1	1	1	1	1	
2	474	SBR	2	1	3	3	2	2	70	86	2.5	1.6	1	1	2	2	1	1	1	1	9	9	
3	481	SBPR	1	1	1	1	2	2	67	77	1.4	0.9	1	1	2	2	1	1	1	1	3	5	
4	494	MD	1	1	1	1	2	2	63	78	0.9	0.7	1	1	2	2	1	1	1	1	1	1	
5	497	MD	1	1	1	1	2	2	67	77	1.1	0.8	3	5	2	-	1	1	1	1	1	1	
6	546	HB	2	2	3	3	3	3	69	87	1.5	0.9	7	7	-	-	1	1	1	1	1	1	
7	552	HB	1	1	1	1	2	2	66	77	1.4	1.0	1	5	2	2	1	1	1	1	1	1	
8	559	HB	1	1	1	1	2	1	68	75	1.3	1.0	1	5	2	-	1	1	1	1	1	1	
Control																							
9	296 B	High yield	2	2	3	3	2	2	80	95	1.1	0.8	1	1	2	2	1	1	1	1	5	5	
Mean			-	-	-	-	-	-	72	82	1.63	1.13	-	-	-	-	-	-	-	-	-	-	
SE ±			-	-	-	-	-	-	0.60	1.75	0.04	0.10	-	-	-	-	-	-	-	-	-	-	
CV (%)			-	-	-	-	-	-	1.44	3.68	4.29	15.83	-	-	-	-	-	-	-	-	-	-	
CD (5%)			-	-	-	-	-	-	1.73	3.81	0.12	0.22	-	-	-	-	-	-	-	-	-	-	

SB- Stemborer (Kharif adaptation); SBPR- Stemborer (rabi adaptation); MD- Midge; HB- Head bug.

Trait No. 1-41 : Traits stipulated in the DUS-test guidelines (Trait no 38 was not recorded in the current trials).

Trait No. 42-48 : Ancillary traits recorded in the current trials.

Trait No. 49-56 : Monitored traits recorded in various trials conducted earlier at ICRISAT.

Serial number		ICSB number		Trait		Trait number →		11		12		13		14		15		16		17		18		19		20		21	
						Stigma: anthocyanin coloration		Stigma: yellow coloration		Stigma length		Pedicellate flower length		Length of anther		Dried anther color		Glume color		Plant height (m) at maturity		Stem thickness (mm)		Juicy score		Box reading (%)			
						Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
1	462	SFPR				1	1	1	3	3	5	5	5	7	4	1	2	1.5	1.2	14.9	14.6	1	1	8.4	16.0				
2	474	SBR				1	1	5	9	9	7	5	5	4	6	7	7	2.7	1.9	17.4	14.7	1	1	5.4	14.0				
3	481	SBPR				1	1	1	5	9	5	3	5	4	7	4	4	1.8	1.1	16.8	14.1	1	1	15.3	15.8				
4	494	MD				1	1	5	3	3	5	5	5	7	4	5	5	1.2	0.9	14.2	15.5	1	1	10.2	13.6				
5	497	MD				1	1	1	5	5	3	5	3	6	4	2	2	1.4	1.0	15.5	15.9	2	1	7.0	10.2				
6	546	HB				1	1	5	3	3	5	5	5	4	4	7	7	1.8	1.1	16.0	16.6	2	1	8.6	14.1				
7	552	HB				1	1	1	3	5	5	5	3	4	6	4	4	1.8	1.3	14.9	16.0	2	1	7.7	15.2				
8	559	HB				1	1	5	5	5	5	5	5	6	6	5	5	1.7	1.4	16.0	16.7	2	1	8.9	13.2				
Control																													
9	296 B	High yield				1	1	1	5	5	5	3	5	4	4	1	1	1.4	1.0	20.0	14.8	2	1	6.0	12.8				
Mean						-	-	-	-	-	-	-	-	-	-	-	-	1.90	1.35	16.64	14.86	-	-	10.33	14.09				
SE ±						-	-	-	-	-	-	-	-	-	-	-	-	0.03	0.03	0.85	0.72	-	-	1.00	1.65				
CV (%)						-	-	-	-	-	-	-	-	-	-	-	-	2.59	4.01	8.83	8.37	-	-	16.71	20.32				
CD (5%)						-	-	-	-	-	-	-	-	-	-	-	-	0.08	0.09	2.47	2.23	-	-	2.90	3.97				

Trait number →		22		23		24		25		26		27		28		29		30		31		32		
Serial number	ICSB number	Trait	Leaf length (cm)		Leaf width (cm)		Panicke length (cm)		Panicke branch length (cm)		Panicke compactness		Panicke shape		Panicke exertion (cm)		Glume coverage (%)		Shattering		Threshability%		Grain form	
			Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
1	462	SFPR	58.4	55.1	7.6	6.9	22.7	20.9	7.7	5.1	5	5	3	3	1.3	13.8	33.3	25.0	1	1	1	1	1	1
2	474	SBR	60.0	56.3	7.8	6.7	21.3	18.8	6.1	5.0	5	7	3	3	1.8	4.9	50.0	50.0	1	1	1	1	1	1
3	481	SBPR	50.9	54.8	7.3	6.4	20.4	19.1	5.2	4.3	7	5	3	3	15.7	8.3	41.7	33.3	1	1	1	1	1	1
4	494	MD	59.1	65.1	7.1	6.6	21.9	18.0	4.3	4.1	5	7	3	3	4.4	3.2	25.0	33.3	1	1	1	1	1	1
5	497	MD	52.6	54.4	7.4	6.7	18.8	17.0	4.7	4.1	5	7	3	3	8.1	2.7	41.7	33.3	1	1	1	1	1	1
6	546	HB	68.6	63.7	8.7	7.0	25.0	21.9	6.7	5.3	5	5	3	3	5.7	4.9	41.7	41.7	1	1	1	1	1	1
7	552	HB	56.8	59.8	7.6	7.0	28.1	20.6	6.3	5.4	5	7	3	3	15.1	13.0	25.0	25.0	1	1	1	1	1	1
8	559	HB	58.8	65.7	7.2	7.3	29.0	24.2	6.3	6.4	5	5	3	3	7.9	8.5	33.3	25.0	1	1	1	1	1	1
Control																								
9	296 B	High yield	62.4	58.0	7.9	5.8	31.1	23.8	5.8	5.1	5	7	3	3	1.0	3.1	25.0	25.0	1	1	1	1	1	1
Mean			58.89	57.52	7.63	6.51	23.22	19.31	5.91	4.58	-	-	-	-	5.82	6.91	44.05	42.26	-	-	-	-	-	-
SE ±			4.30	2.16	0.34	0.33	1.00	0.66	0.49	0.40	-	-	-	-	0.69	0.56	4.66	5.20	-	-	-	-	-	-
CV (%)			12.66	6.52	7.68	8.78	7.48	5.89	14.26	15.13	-	-	-	-	20.57	14.07	18.34	21.33	-	-	-	-	-	-
CD (5%)			12.51	9.53	0.98	0.96	2.91	2.37	1.42	1.26	-	-	-	-	2.01	1.82	13.56	13.83	-	-	-	-	-	-

Annexure I-9, ... Contd.

Trait number →		33	34	35	36	37	39	40	41	42	43		44		45		46		47											
Serial number	ICSB number	Trait	Grain color		1000-grain mass (g)		Grain shape-dorsal view		Grain shape-profile view		Grain germ size		Endosperm texture		Albumen color		Grain lustre		Days to seedling emergence		Leaf glossy score		Seedling vigor score		Plant aspect score		Panicle yield (t ha ⁻¹)		Grain yield (t ha ⁻¹)	
			Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	
1	462	SFPR	8	26.89	2	2	3	3	5	6	7	1.0	1.0	3.0	3.0	1.7	2.0	2.9	3.5	2.1	2.8									
2	474	SBPR	8	37.03	3	3	7	7	5	6	8	2.3	3.0	3.7	4.7	2.7	2.0	6.6	5.1	5.0	2.8									
3	481	SBPR	1	23.49	3	3	3	3	7	5	7	2.0	2.0	3.0	3.0	2.3	2.7	2.7	3.1	2.0	3.2									
4	494	MD	8	25.58	3	3	7	5	5	5	7	3.0	2.0	3.0	3.3	2.0	1.7	2.9	4.5	2.2	3.7									
5	497	MD	8	26.36	3	3	3	3	5	5	7	2.7	3.0	2.7	2.3	1.7	2.0	3.6	3.5	2.7	2.8									
6	546	HB	8	30.74	3	3	3	5	5	6	8	2.7	3.0	3.0	3.7	2.7	2.0	3.5	5.6	2.6	4.0									
7	552	HB	8	29.89	3	3	3	3	5	5	6	2.3	2.7	1.7	1.3	2.0	1.7	3.6	4.0	2.7	3.3									
8	559	HB	1	34.23	3	3	3	3	5	6	7	2.7	3.3	2.7	2.3	2.0	1.7	3.4	4.4	2.5	3.6									
Control																														
9	296 B	High yield	8	29.33	3	3	3	5	1	6	7	3.0	3.0	3.3	3.0	1.0	1.7	4.7	3.1	3.3	2.0									
Mean			-	28.16	-	-	-	-	-	5	7	2.21	2.43	2.76	2.64	2.07	2.10	3.68	4.14	2.74	3.14									
SE ±			-	0.79	-	-	-	-	-	0.29	0.24	0.21	0.24	0.30	0.28	0.26	0.20	0.43	0.35	0.35	0.22									
CV (%)			-	4.84	-	-	-	-	-	9.11	5.91	16.40	17.18	18.79	18.32	21.57	16.21	20.28	14.63	21.98	12.01									
CD (5%)			-	2.30	-	-	-	-	-	0.84	0.74	0.61	0.65	0.87	0.83	0.75	0.64	1.25	1.28	1.01	0.96									

Serial number	ICSB number	Trait	Trait number →		48	49	50	51	52	53	54	55	56
			Seed set % in A-line under high atmospheric temperature		Summer	Seed set % in A-line under open pollination	Shoot fly dead hearts%	Stem borer leaf feeding score	Stem borer dead hearts%	Stem borer dead hearts%	Midge score under cage	Midge score under cage	Head bug score
1	462	SFPR	5	30	36	-	-	-	-	-	-	-	-
2	474	SBR	20	35	-	-	-	-	-	-	-	-	-
3	481	SBPR	0	60	-	-	-	-	33.2	-	-	-	-
4	494	MD	0	30	-	-	-	-	-	2.4	3.1	-	-
5	497	MD	0	50	-	-	-	-	-	2.9	3.1	-	-
6	546	HB	0	60	-	-	-	-	-	-	-	-	5
7	552	HB	0	80	-	-	-	-	-	-	-	-	4.3
8	559	HB	0	50	-	-	-	-	-	-	-	-	4.3
Control													
9	296 B	High yield	-	-	-	-	-	-	-	-	-	-	-
Mean			-	-	-	-	-	-	-	-	-	-	-
SE ±			-	-	-	-	-	-	-	-	-	-	-
CV (%)			-	-	-	-	-	-	-	-	-	-	-
CD (5%)			-	-	-	-	-	-	-	-	-	-	-

Annexure I-10. Characteristics of pest resistant (medium maturity) sorghum B-lines evaluated during the rainy and post-rainy seasons, 2005 at ICRISAT-Patancheru.

Serial number	ICSB number	Trait number →		1		2		3		4		5		6		7		8		9		10	
		Trait		Coleoptile color		Fifth leaf sheath color		Leaf midrib color		Days to 50% flowering		Plant height (m) at flowering		Flag leaf: Extension of discoloration of mid rib		Flag leaf: intensity of green coloration of midrib compared to the blade		Flag leaf: yellow coloration of mid rib		Glume hair color		Lemma: arista formation	
				Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy
1	409	SFR		2	1	3	1	2	2	79	88	1.8	1.1	1	1	2	2	1	1	1	1	1	1
2	410	SFR		2	1	3	1	2	2	76	86	1.8	1.1	1	1	2	2	1	1	1	1	1	1
3	411	SFR		2	2	3	3	3	2	71	76	1.2	0.9	1	1	2	2	1	1	1	1	1	1
4	412	SFR		2	2	3	3	2	2	70	74	1.3	0.9	1	1	2	2	1	1	1	1	1	1
5	417	SFR		2	2	3	3	2	2	75	79	0.7	0.5	1	1	2	2	1	1	1	1	1	1
6	421	SFR		2	1	3	3	2	2	66	76	1.2	0.9	1	1	2	2	1	1	1	1	1	3
7	424	SFR		2	1	1	1	2	2	78	77	1.2	0.8	1	1	2	2	1	1	1	1	1	3
8	426	SFR		1	1	1	1	2	2	69	78	1.1	0.7	1	1	2	2	1	1	1	1	3	1
9	427	SFR		1	1	1	1	2	2	69	76	1.2	0.8	1	1	2	2	1	1	1	1	3	3
10	430	SFR		2	1	3	1	2	2	74	83	1.3	0.9	1	1	2	2	1	1	1	1	1	1
11	436	SFR		1	1	1	1	2	2	71	78	0.9	0.7	1	5	2	-	1	1	1	1	1	1
12	437	SFR		1	1	1	1	2	2	79	88	1.1	0.8	1	1	2	2	1	1	1	1	1	1
13	438	SFR		1	1	1	1	2	2	78	83	1.0	0.8	1	1	2	2	1	1	1	1	1	1
14	439	SFR		1	1	1	1	2	2	73	78	1.0	0.8	1	1	2	2	1	1	1	1	1	1
15	441	SFR		2	2	3	3	2	2	74	83	0.9	0.7	1	1	2	2	1	1	1	1	1	1
16	442	SFR		2	2	3	3	2	2	76	78	1.0	0.6	1	1	2	2	1	1	1	1	1	1
17	447	SFR		2	2	3	3	2	2	77	81	1.4	0.9	1	1	2	2	1	1	1	1	1	1
18	448	SFR		1	1	1	1	2	2	75	99	1.4	0.9	1	1	2	2	1	1	1	1	5	5
19	455	SFR		1	1	1	1	2	2	75	89	1.0	0.7	1	1	2	2	1	1	1	1	1	1
20	456	SFR		1	1	1	1	2	2	78	100	1.2	0.8	1	1	2	2	1	1	1	1	1	1
21	458	SFR		2	1	1	1	2	2	73	81	1.0	0.7	1	1	2	2	1	1	1	1	1	1
22	459	SFR		2	1	3	1	2	2	70	81	1.3	0.9	1	1	2	2	1	1	1	1	1	1
23	463	SFR		2	1	3	1	2	2	78	81	1.2	0.9	1	1	2	2	1	1	1	1	1	1
24	466	SFR		2	1	3	3	2	2	65	79	1.2	1.0	1	1	2	2	1	1	1	1	1	3
25	473	SFR		2	2	3	3	2	2	72	78	1.3	0.9	1	1	2	2	1	1	1	1	1	1
26	476	SFR		1	1	1	1	2	2	78	91	1.3	1.0	1	1	2	2	1	1	1	1	1	1
27	480	SFR		2	2	3	3	2	2	73	78	2.5	1.4	1	1	2	2	1	1	1	1	3	5
28	482	SFR		2	2	3	3	2	2	77	80	1.5	1.0	1	5	2	-	1	1	1	1	5	5
29	487	SFR		2	2	3	3	2	2	76	86	1.6	1.0	1	1	2	2	1	1	1	1	1	1
30	489	MD		1	1	1	1	2	2	79	78	1.3	0.9	1	1	2	2	1	1	1	1	1	1
31	492	MD		1	1	1	1	2	2	72	91	1.2	1.0	1	1	2	-	1	1	1	1	1	1
32	493	MD		1	1	1	1	2	2	67	82	0.9	0.8	1	1	2	2	1	1	1	1	1	1
33	495	MD		1	1	1	1	2	2	68	84	1.1	0.9	1	1	2	2	1	1	1	1	1	1
34	506	MD		1	1	1	1	2	2	74	76	1.1	0.9	1	1	2	2	1	1	1	1	1	1

Serial number	ICSB number	Trait number →		1		2		3		4		5		6		7		8		9		10	
		Trait	→	Coleoptile color		Fifth leaf sheath color		Leaf midrib color		Days to 50% flowering		Plant height (m) at flowering		Flag leaf: Extension of discoloration of mid rib		Flag leaf: intensity of green coloration of midrib compared to the blade		Flag leaf: yellow coloration of mid rib		Glume hair color		Lemma: arista formation	
				Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
35	509	MD		1	1	1	1	2	1	71	84	1.3	1.1	1	1	2	2	1	1	1	1	1	1
36	511	MD		2	1	3	3	2	2	67	83	0.9	0.6	3	1	-	2	1	1	1	1	1	1
37	513	MD		1	1	1	1	2	2	76	89	1.0	0.7	1	1	2	2	1	1	1	1	1	1
38	517	MD		1	1	3	3	2	2	71	87	0.9	0.7	1	1	2	2	1	1	1	1	1	1
39	519	MD		1	1	1	1	2	2	74	81	0.9	0.8	1	1	2	2	1	1	1	1	1	1
40	521	MD		1	1	1	1	2	2	79	79	1.2	1.0	1	1	2	2	1	1	1	1	1	1
41	522	MD		1	1	1	1	2	2	69	84	1.2	0.9	1	1	2	2	1	1	1	1	1	1
42	523	MD		1	1	1	1	2	2	73	78	1.3	0.9	1	5	2	-	1	1	1	1	1	1
43	524	MD		1	1	1	1	2	2	69	82	1.1	0.8	1	1	2	2	1	1	1	1	1	1
44	525	MD		1	1	1	1	2	2	69	84	0.8	0.7	-	1	-	2	-	1	1	1	1	1
45	527	MD		1	1	1	1	2	1	77	99	1.0	0.7	3	5	2	-	1	1	1	1	1	1
46	528	MD		2	2	3	3	2	2	78	81	0.9	0.7	1	1	2	2	1	1	1	1	1	1
47	533	MD		1	1	1	1	2	1	73	86	1.0	0.8	1	5	2	-	1	1	1	1	1	1
48	534	MD		1	1	1	1	2	2	68	91	1.2	0.8	1	1	2	2	1	1	1	1	1	1
49	536	MD		1	1	1	1	2	2	74	81	1.1	0.9	1	5	2	-	1	1	1	1	1	1
50	542	MD		1	1	1	1	2	2	71	88	0.8	0.7	1	5	2	-	1	1	1	1	1	1
51	543	MD		1	1	1	1	2	2	70	89	0.9	0.8	1	1	2	2	1	1	1	1	1	1
52	545	MD		1	1	1	1	2	2	70	97	1.6	1.0	1	1	2	2	1	1	1	1	1	1
53	549	HB		1	1	1	1	2	1	68	74	1.3	1.0	1	5	2	2	1	1	1	1	1	1
54	550	HB		2	2	3	3	2	2	69	85	1.4	1.1	1	5	2	-	1	1	1	1	1	1
55	553	HB		1	1	1	1	2	2	70	74	1.3	1.0	1	5	2	-	1	1	1	1	1	1
56	563	HB		1	1	1	1	2	2	75	84	1.4	1.1	1	5	2	-	1	1	1	1	1	1
57	565	HB		1	1	1	1	2	1	70	78	1.5	1.1	1	1	2	2	1	1	1	1	1	1
Control																							
58	296 B	High yield		2	1	3	1	2	2	78	94	1.1	0.8	1	1	2	2	1	1	1	1	5	5
Mean				-	-	-	-	-	-	73	83	1.28	0.90	-	-	-	-	-	-	-	-	-	-
SE ±				-	-	-	-	-	-	1.20	1.50	0.06	0.03	-	-	-	-	-	-	-	-	-	-
CV (%)				-	-	-	-	-	-	2.85	3.11	7.81	6.27	-	-	-	-	-	-	-	-	-	-
CD (5%)				-	-	-	-	-	-	3.39	3.92	0.16	0.13	-	-	-	-	-	-	-	-	-	-

SF- Shoot fly (Kharif adaptation); SFP- Shoot fly (Rabi adaptation); SP- Stemborer (Kharif adaptation); SBP- Stemborer (rabi adaptation); MD- Midges; HB- Head bug.

Trait No. 1-41 : Traits stipulated in the DUS-test guidelines (Trait no 38 was not recorded in the current trials).

Trait No. 42-48 : Ancillary traits recorded in the current trials.

Trait No. 49-57 : Monitored traits recorded in various trials conducted earlier at ICRISAT.

Serial number	ICSB number	Trait	11		12		13		14		15		16		17		18		19		20		21	
			Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy
1	409	SFR	1	1	5	1	5	5	5	5	3	3	4	4	2	2	1.9	1.3	17.0	19.4	1	1	10.3	15.0
2	410	SFR	1	1	1	1	5	5	5	5	3	3	4	4	2	2	1.9	1.3	17.6	19.6	1	1	13.7	15.3
3	411	SFR	1	1	1	1	5	5	5	5	5	5	4	4	4	4	1.7	1.3	18.1	17.9	2	1	5.0	17.0
4	412	SFR	1	1	5	1	5	5	5	5	3	5	4	4	2	2	1.7	1.3	17.3	18.7	2	1	6.3	14.3
5	417	SFR	1	1	1	1	3	3	5	5	5	5	6	6	4	4	1.0	0.8	18.7	17.5	1	1	8.7	13.0
6	421	SFR	1	1	5	5	5	5	5	5	5	5	4	4	7	2	1.5	1.0	16.1	18.2	1	1	10.0	18.3
7	424	SFR	1	1	1	1	3	5	5	5	5	5	6	4	5	5	1.5	1.2	15.3	13.5	2	1	7.3	10.0
8	426	SFR	1	1	1	1	5	5	7	5	5	5	4	4	2	2	1.3	0.9	16.3	16.3	1	1	15.3	14.7
9	427	SFR	1	1	1	1	5	5	5	5	5	5	4	4	2	2	1.5	1.1	16.0	17.0	1	1	9.3	14.7
10	430	SFR	1	1	5	1	5	5	5	5	5	5	6	4	2	2	1.7	1.2	14.0	18.7	1	1	9.0	14.0
11	436	SFR	1	1	7	5	3	3	5	3	5	5	4	4	2	2	1.3	1.1	19.5	18.8	1	1	12.0	13.3
12	437	SFR	1	1	1	1	5	3	5	5	5	5	4	6	5	5	1.4	1.2	21.8	20.3	1	1	8.3	11.0
13	438	SFR	1	1	1	1	5	5	5	5	3	5	4	4	2	2	1.2	1.1	16.5	16.9	1	1	11.3	16.0
14	439	SFR	1	1	5	1	5	3	5	3	3	5	4	7	2	2	1.2	1.0	18.9	18.6	1	1	6.3	19.0
15	441	SFR	1	1	1	1	5	3	5	5	5	5	6	4	1	2	1.2	0.9	20.3	18.0	1	1	7.3	11.3
16	442	SFR	1	1	1	1	5	5	5	5	5	5	6	4	2	2	1.3	0.8	18.3	19.1	1	1	9.7	13.3
17	447	SFR	1	1	1	1	5	5	7	5	5	5	6	4	2	2	1.7	1.2	18.3	19.9	1	1	10.7	16.7
18	448	SFR	1	1	5	1	3	3	7	5	5	7	6	4	2	4	1.9	1.3	17.1	19.9	1	-	7.7	15.5
19	455	SFR	1	1	1	1	3	3	5	5	5	3	4	4	1	1	1.2	0.9	20.2	18.7	1	1	9.0	13.3
20	456	SFR	1	1	1	1	5	5	5	5	5	5	4	4	1	1	1.8	1.1	21.0	21.9	1	1	14.0	14.0
21	458	SFR	1	1	1	1	5	5	5	3	3	3	4	4	2	2	1.1	0.9	15.7	17.6	1	1	7.7	14.0
22	459	SFR	1	1	1	1	5	3	7	5	5	5	6	4	2	2	1.7	1.2	19.7	16.1	2	1	8.3	15.7
23	463	SFR	1	1	1	1	3	3	5	5	5	5	4	4	4	4	1.5	1.1	19.6	21.3	2	1	9.3	16.3
24	466	SBR	1	1	5	1	5	5	5	5	3	5	4	4	5	5	1.6	1.5	14.2	17.1	1	1	9.3	12.0
25	473	SBR	1	1	5	5	5	5	5	5	5	5	4	7	2	2	1.6	1.1	16.6	15.6	1	1	9.7	12.7
26	476	SBR	1	1	7	5	3	5	7	5	3	5	4	4	2	2	1.7	1.3	18.4	20.7	1	2	11.0	11.7
27	480	SBR	1	1	5	1	5	3	5	5	5	5	4	4	4	4	2.7	1.6	15.9	14.6	1	1	12.7	19.7
28	482	SBR	1	1	5	1	5	5	7	5	5	5	6	6	4	4	1.7	1.1	16.7	13.6	1	1	9.7	16.0
29	487	SBR	1	1	1	1	5	5	5	5	5	5	4	6	2	2	1.9	1.2	16.5	16.2	1	1	17.0	17.3
30	489	MD	1	1	1	1	3	3	5	3	5	5	4	4	5	5	1.4	1.1	18.4	16.8	1	1	14.0	15.0
31	492	MD	1	1	5	1	5	5	5	5	5	5	4	4	5	5	1.5	1.2	15.4	18.3	1	1	12.0	11.0
32	493	MD	1	1	5	1	5	5	5	5	3	5	4	4	5	5	1.1	0.9	13.9	18.1	2	1	10.0	16.3
33	495	MD	1	1	5	1	5	5	5	5	5	5	4	4	5	5	1.4	1.1	13.8	18.4	2	1	10.3	16.0
34	506	MD	1	1	5	5	5	5	5	5	3	5	6	4	5	5	1.4	1.0	18.1	18.2	1	1	12.0	13.3

Serial number	Trait number →	11		12		13		14		15		16		17		18		19		20		21	
		Stigma: anthocyanin coloration		Stigma: yellow coloration		Stigma length		Pedicellate flower length		Length of anther		Dried anther color		Glume color		Plant height (m) at maturity		Stem thickness (mm)		Juicy score		Brix reading (%)	
ICSB number	Trait	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
35	509 MD	1	1	7	5	5	5	5	5	3	5	4	4	2	2	1.7	1.5	17.1	17.7	1	1	10.7	16.7
36	511 MD	1	1	5	1	3	5	5	3	3	3	4	4	5	4	1.1	0.9	17.3	17.3	1	1	13.0	16.7
37	513 MD	1	1	1	1	5	3	5	5	3	3	4	4	5	5	1.3	1.0	16.4	17.2	1	2	18.3	11.0
38	517 MD	1	1	1	1	3	3	3	5	3	3	4	4	5	5	1.1	0.9	16.8	18.5	1	1	16.0	15.0
39	519 MD	1	1	7	1	5	3	5	5	3	5	6	6	5	4	1.2	1.0	21.4	22.2	1	1	11.3	15.7
40	521 MD	1	1	5	1	5	5	5	5	3	5	4	4	5	4	1.4	1.2	16.3	17.9	1	1	13.0	14.0
41	522 MD	1	1	5	1	5	5	5	5	5	5	6	4	5	5	1.5	1.2	15.9	16.2	1	1	5.7	12.0
42	523 MD	1	1	1	5	5	5	5	5	5	5	6	4	4	4	1.6	1.1	16.1	16.1	1	1	6.3	17.3
43	524 MD	1	1	5	1	5	3	5	5	5	5	4	4	4	4	1.5	1.1	14.8	15.6	2	1	7.7	11.0
44	525 MD	1	1	7	7	3	5	5	5	3	5	4	4	5	4	1.0	0.9	13.9	17.9	-	1	16.0	16.0
45	527 MD	1	1	1	1	5	5	5	5	5	3	4	4	5	5	1.1	0.9	17.3	17.0	2	1	13.3	10.7
46	528 MD	1	1	1	1	3	3	5	5	5	5	6	4	2	2	1.2	0.9	19.3	18.1	1	1	8.3	14.0
47	533 MD	1	1	5	5	5	5	5	3	5	5	4	4	2	2	1.2	0.9	17.3	17.1	1	1	11.0	15.3
48	534 MD	1	1	5	1	5	3	3	3	3	5	4	4	5	4	1.5	1.1	15.4	17.2	1	1	14.0	12.7
49	536 MD	1	1	1	1	5	5	5	5	5	5	6	6	2	2	1.2	1.1	19.1	17.8	1	2	8.3	14.3
50	542 MD	1	1	1	1	5	5	5	5	3	3	4	4	5	5	1.1	0.9	20.2	22.0	1	1	9.0	14.3
51	543 MD	1	1	5	1	5	5	3	5	3	3	4	4	5	5	1.3	1.1	16.3	18.8	1	1	6.3	10.3
52	545 MD	1	1	1	1	5	3	5	5	5	3	4	4	4	4	1.9	1.3	15.4	17.3	1	1	9.0	16.7
53	549 HB	1	1	1	1	3	5	7	5	5	5	6	4	4	4	1.7	1.3	16.4	15.3	1	1	10.3	15.7
54	550 HB	1	1	5	1	5	5	5	5	5	5	4	4	4	4	1.8	1.4	15.5	17.9	1	1	9.0	14.0
55	553 HB	1	1	1	1	5	5	5	5	3	5	6	6	2	6	1.7	1.3	15.8	16.6	2	1	10.0	16.7
56	563 HB	1	1	1	1	5	3	7	5	5	5	4	4	2	6	1.7	1.3	15.8	17.2	2	1	9.0	16.3
57	565 HB	1	1	1	1	5	5	5	5	5	5	4	4	2	7	1.9	1.4	14.6	16.5	1	1	16.3	18.7
Control																							
58	296 B High yield	1	1	1	1	5	5	5	5	3	5	4	4	1	1	1.4	1.1	18.3	18.3	2	1	6.0	13.3
Mean		-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.57	1.15	17.15	17.66	-	-	10.50	14.73
SE ±		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.07	0.04	1.16	0.89	-	-	0.90	0.96
CV (%)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.81	5.43	11.75	8.74	-	-	14.81	11.31
CD (5%)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.20	0.16	3.29	3.01	-	-	2.53	2.65

Serial number	ICSB number	Trait	22		23		24		25		26		27		28		29		30		31	
			Trait number →						Panicke branch length (cm)		Panicke compactness		Panicke shape		Panicke exertion (cm)		Glume coverage (%)		Shattering		Thresholdity%	
			Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
1	409	SFR	72.1	69.1	7.9	7.4	22.8	20.1	5.4	4.3	7	7	3	3	0.0	1.7	25.0	25.0	1	1	1	1
2	410	SFR	78.9	69.1	8.0	7.3	22.2	20.7	4.9	4.3	7	7	3	3	0.0	2.3	33.3	25.0	1	1	1	1
3	411	SFR	62.8	52.0	8.2	6.8	28.1	24.8	7.7	8.0	7	5	3	3	11.0	15.7	25.0	25.0	1	1	1	1
4	412	SFR	52.8	55.2	7.2	6.8	27.1	24.4	7.8	7.2	5	5	3	3	17.3	17.3	25.0	25.0	1	1	1	1
5	417	SFR	65.4	59.6	8.1	7.8	26.3	21.4	8.2	7.2	7	7	3	3	6.0	4.7	41.7	25.0	1	1	1	1
6	421	SFR	69.1	61.1	8.3	7.3	23.1	18.3	6.2	5.9	5	5	3	3	10.0	5.3	25.0	25.0	1	1	1	1
7	424	SFR	55.8	48.9	7.7	5.4	26.9	22.1	6.8	6.1	5	5	3	3	6.7	12.3	25.0	41.7	1	1	1	1
8	426	SFR	62.0	52.1	8.7	7.1	28.2	21.9	5.6	5.7	5	5	3	3	0.0	2.0	33.3	50.0	1	1	1	1
9	427	SFR	62.3	52.7	8.3	7.8	26.2	21.3	9.2	7.4	5	5	3	3	4.7	5.7	41.7	25.0	1	1	1	1
10	430	SFR	62.7	56.7	8.0	6.6	24.6	21.2	7.4	5.9	5	7	3	3	18.0	11.7	25.0	25.0	1	1	1	1
11	436	SFR	73.7	61.7	9.3	7.6	31.6	26.4	9.9	9.7	5	5	3	3	6.7	14.3	33.3	33.3	1	1	1	1
12	437	SFR	58.8	53.9	8.6	7.0	27.6	24.2	7.7	5.4	7	7	3	3	2.3	7.7	33.3	25.0	1	1	1	1
13	438	SFR	62.7	58.8	8.1	6.8	23.9	21.6	5.4	5.1	5	7	3	3	5.0	3.0	33.3	25.0	1	1	1	1
14	439	SFR	72.9	57.7	9.1	7.2	26.8	21.7	5.9	5.2	5	5	3	3	0.0	2.0	33.3	25.0	1	1	1	1
15	441	SFR	67.9	60.9	9.7	7.8	29.1	23.8	7.2	7.2	7	5	3	3	0.0	2.0	25.0	25.0	1	1	1	1
16	442	SFR	72.2	59.1	8.6	7.2	28.8	23.0	7.4	7.0	5	5	3	3	2.7	0.0	33.3	41.7	1	1	1	1
17	447	SFR	66.3	60.9	9.2	8.2	26.9	23.3	8.6	7.3	7	5	3	3	6.3	6.7	41.7	33.3	1	1	1	1
18	448	SFR	73.4	73.0	7.3	6.1	33.8	29.4	11.7	9.1	3	3	4	4	15.0	14.7	75.0	75.0	1	1	1	1
19	455	SFR	72.1	58.0	9.7	6.9	25.4	18.7	6.5	5.0	7	7	3	3	1.3	4.3	25.0	25.0	1	1	1	1
20	456	SFR	64.1	63.0	10.1	8.6	26.6	23.1	8.1	8.9	7	7	3	3	3.7	4.7	25.0	41.7	1	1	1	1
21	458	SFR	62.8	55.9	8.0	7.1	21.6	17.9	5.7	4.7	7	7	3	3	1.0	0.0	33.3	41.7	1	1	1	1
22	459	SFR	59.4	53.6	8.3	6.2	30.2	23.4	8.2	5.6	5	5	3	3	10.3	12.7	25.0	25.0	1	1	1	1
23	463	SFR	65.6	55.1	8.0	7.0	27.9	24.0	8.0	6.2	7	5	3	3	3.0	4.7	25.0	33.3	1	1	1	1
24	466	SBR	56.1	57.3	7.2	6.6	31.0	26.4	9.6	8.7	3	5	3	3	8.7	16.3	25.0	41.7	1	1	1	1
25	473	SBR	61.8	51.0	8.3	7.1	17.7	15.0	5.5	4.7	7	7	3	3	11.7	8.3	33.3	25.0	1	1	1	1
26	476	SBR	68.1	61.2	7.2	5.6	28.9	26.8	7.2	6.9	5	5	3	3	10.3	3.3	25.0	41.7	1	1	1	1
27	480	SBR	64.0	50.4	8.0	7.0	21.6	15.4	6.7	5.0	5	5	3	3	6.3	5.0	25.0	41.7	1	1	1	1
28	482	SBR	67.6	58.7	8.9	7.0	26.2	21.9	7.0	6.2	5	5	3	3	0.0	2.3	33.3	50.0	1	1	1	1
29	487	SBR	60.0	47.1	7.9	7.1	15.4	14.6	4.2	4.1	7	7	3	3	8.0	8.0	41.7	33.3	1	1	1	1
30	489	MD	72.9	67.6	8.7	7.0	19.4	19.2	5.1	4.9	7	7	3	3	0.0	0.0	25.0	25.0	1	1	1	1
31	492	MD	62.9	74.1	7.3	6.7	22.2	22.2	6.8	5.8	5	5	3	3	5.7	4.7	41.7	33.3	1	1	1	1
32	493	MD	60.2	63.8	7.9	7.1	21.2	18.3	4.1	4.7	7	7	3	3	5.0	3.0	25.0	25.0	1	1	1	1
33	495	MD	58.4	65.3	7.3	7.2	21.7	20.0	5.6	4.7	5	7	3	3	8.0	6.0	33.3	33.3	1	1	1	1
34	506	MD	64.7	57.7	8.6	7.3	23.2	18.7	6.6	5.3	5	5	3	3	2.3	5.3	25.0	33.3	1	1	1	1

Trait number →		22		23		24		25		26		27		28		29		30		31	
Serial number	ICSIB number	Leaf length (cm)		Leaf width (cm)		Panicke length (cm)		Panicke branch length (cm)		Panicke compactness		Panicke shape		Panicke exertion (cm)		Glume coverage (%)		Shattering		Thresholdability %	
		Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
35	509	MD	60.4	59.2	8.1	6.6	25.4	23.6	6.1	4.4	7	7	7	17.3	16.7	33.3	33.3	1	1	1	1
36	511	MD	69.0	59.2	7.8	7.0	23.9	18.9	5.7	5.4	5	7	3	5.3	9.0	25.0	25.0	1	1	1	1
37	513	MD	65.2	63.8	7.7	7.3	22.9	20.6	5.1	5.1	7	7	3	3	0.0	4.0	33.3	25.0	1	1	1
38	517	MD	65.6	58.2	8.1	6.8	21.3	19.7	5.1	4.7	7	5	3	1.7	2.0	25.0	25.0	1	1	1	1
39	519	MD	69.6	67.6	8.2	7.7	26.2	22.4	6.6	5.9	7	5	3	1.3	3.0	41.7	25.0	1	1	1	1
40	521	MD	66.1	66.6	8.2	6.8	26.6	20.2	6.4	4.9	7	5	3	2.0	5.0	25.0	33.3	1	1	1	1
41	522	MD	65.9	59.2	7.7	6.9	22.1	20.0	5.9	4.9	5	7	3	6.7	10.3	25.0	33.3	1	1	1	1
42	523	MD	67.1	58.6	7.8	7.0	26.2	20.8	6.3	5.2	5	5	3	10.3	3.7	33.3	33.3	1	1	1	1
43	524	MD	62.7	57.1	7.6	6.8	24.0	18.3	4.8	3.4	7	7	3	13.0	5.7	25.0	33.3	1	1	1	1
44	525	MD	64.3	57.8	8.2	7.3	21.7	19.1	5.2	4.1	5	5	3	1.0	5.7	25.0	25.0	1	1	1	1
45	527	MD	60.2	61.6	7.9	6.6	17.9	18.2	3.9	3.8	7	7	3	2.7	2.0	25.0	25.0	1	1	1	1
46	528	MD	63.0	54.8	8.0	7.1	28.8	22.3	6.8	6.2	7	5	3	1.0	2.0	33.3	25.0	1	1	1	1
47	533	MD	64.4	63.3	8.8	6.8	19.4	16.3	6.3	4.2	5	7	3	0.0	0.0	41.7	33.3	1	1	1	1
48	534	MD	57.3	56.4	7.7	6.2	24.0	22.1	6.6	4.1	7	7	3	8.7	6.0	25.0	25.0	1	1	1	1
49	536	MD	68.9	67.8	8.0	6.8	22.4	18.7	6.0	4.2	7	7	3	0.0	4.3	33.3	41.7	1	1	1	1
50	542	MD	52.1	52.8	7.9	6.6	19.8	19.6	7.3	6.6	7	7	3	11.7	9.0	25.0	33.3	1	1	1	1
51	543	MD	54.9	50.7	7.4	6.4	22.0	20.9	5.4	4.9	7	7	3	15.7	9.0	25.0	33.3	1	1	1	1
52	545	MD	66.1	59.1	7.9	6.1	22.7	18.7	5.3	3.7	7	7	4	15.0	8.0	25.0	33.3	1	1	1	1
53	549	HB	65.8	67.6	7.8	6.2	29.9	25.9	7.5	5.4	5	7	3	4.0	8.0	25.0	25.0	1	1	1	1
54	550	HB	56.7	60.1	7.7	6.7	26.3	23.1	5.2	4.1	5	7	3	10.7	6.0	25.0	25.0	1	1	1	1
55	553	HB	64.3	55.9	8.2	6.2	26.2	21.1	6.1	5.0	5	5	3	3.3	10.7	25.0	25.0	1	1	1	1
56	563	HB	65.6	59.2	8.3	6.9	27.6	22.2	6.3	4.0	7	7	3	7.0	3.3	25.0	33.3	1	1	1	1
57	565	HB	64.6	52.3	7.7	6.8	24.9	21.0	5.7	4.0	7	7	3	11.0	5.7	25.0	50.0	1	1	1	1
Control																					
58	296 B	High yield	62.2	60.7	8.0	6.8	29.0	23.0	6.5	4.7	5	7	3	2.7	1.7	25.0	25.0	1	1	1	1
Mean			64.39	58.77	8.17	6.90	24.62	20.93	6.49	5.38	-	-	-	6.00	6.24	32.25	34.73	-	-	-	-
SE ±			3.50	2.73	0.40	0.34	1.04	0.74	0.52	0.40	-	-	-	0.72	0.65	5.14	5.92	-	-	-	-
CV (%)			9.42	8.05	8.48	8.48	7.32	6.15	13.76	12.97	-	-	-	20.72	18.15	27.63	29.52	-	-	-	-
CD (5%)			9.91	9.26	1.13	1.04	2.94	2.55	1.46	1.31	-	-	-	2.01	1.94	14.39	15.56	-	-	-	-

Serial number		ICSB number	Trait number →		32	33	34	35	36	37	39	40	41	42	43	44	45										
			Trait																								
1-20	1-20	1-20	Grain form		Rainy	Postrainy	Grain color	1000-grain mass (g)		Grain shape-dorsal view	Grain shape-profile view	Grain germ size	Endosperm texture		Albumen color		Grain lustre		Days to seedling emergence		Leaf glossy score		Seedling vigor score		Plant aspect score		
			Rainy	Postrainy				Postrainy	Postrainy				Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy
			1	409	SFR	1	1	8	32.41	3	3	5	3	3	3	1	5	7	2.7	2.3	2.7	1.3	2.0				
			2	410	SFR	1	1	8	32.58	3	3	5	3	3	3	1	5	7	2.7	2.3	3.0	2.0	1.7	2.0			
			3	411	SFR	1	1	8	33.93	3	3	5	5	3	3	5	6	7	2.3	2.0	3.0	3.0	1.7	2.0			
			4	412	SFR	1	1	8	37.38	3	3	5	3	3	3	1	6	7	2.7	1.3	3.0	2.0	1.7	2.0			
			5	417	SFR	1	1	8	32.17	3	3	5	5	5	3	1	5	7	1.7	2.3	3.0	3.0	1.0	2.0			
			6	421	SFR	1	1	8	33.27	3	3	5	5	5	3	1	5	7	2.7	2.7	3.0	3.0	2.7	2.3			
			7	424	SFR	1	1	1	25.79	3	3	5	3	3	3	5	6	7	1.0	1.3	3.0	2.3	2.0	2.0			
			8	426	SFR	1	1	8	27.91	3	3	5	5	5	3	1	5	7	1.7	1.0	3.0	2.3	2.3	2.0			
			9	427	SFR	1	1	1	27.84	3	3	5	3	3	3	1	5	7	2.3	1.3	3.0	3.0	2.0	2.0			
			10	430	SFR	1	1	1	22.13	3	3	5	3	3	3	5	5	7	1.7	1.7	3.0	3.0	1.7	2.0			
			11	436	SFR	1	1	1	25.88	3	3	5	3	3	3	5	7	7	3.0	3.3	4.0	3.3	1.3	1.3			
			12	437	SFR	1	1	1	28.43	3	3	7	5	3	3	5	6	7	3.0	3.0	3.3	3.3	1.7	2.0			
			13	438	SFR	1	1	8	30.25	3	3	5	5	5	3	5	6	8	1.7	1.3	3.7	3.7	2.0	2.0			
			14	439	SFR	1	1	8	27.23	3	3	5	5	5	3	5	5	7	1.3	1.0	3.0	2.3	1.3	2.0			
			15	441	SFR	1	1	1	30.72	3	3	5	3	3	3	5	6	7	1.3	1.0	3.0	3.0	1.3	2.3			
			16	442	SFR	1	1	1	28.17	3	3	5	3	3	3	5	6	7	1.7	1.3	2.7	2.7	1.7	2.0			
			17	447	SFR	1	1	8	33.20	3	3	5	5	5	3	5	5	7	1.3	1.7	3.0	2.7	1.3	2.0			
			18	448	SFR	1	1	8	20.03	2	2	7	3	3	3	1	5	9	2.7	3.0	3.7	5.0	3.3	2.7			
19	455	SFR	1	1	8	24.13	3	3	5	5	5	3	1	5	8	2.3	1.3	3.0	3.3	1.3	2.3						
20	456	SFR	1	1	8	28.57	3	3	5	5	5	3	1	7	9	2.7	-	3.7	-	1.7	1.3						
21	458	SFR	1	1	8	25.71	3	3	5	3	3	3	1	5	8	1.7	2.3	3.0	3.7	2.3	2.0						
22	459	SFR	1	1	8	35.12	3	3	5	5	5	3	5	6	7	2.7	3.0	2.7	2.3	2.3	2.0						
23	463	SFR	1	1	1	30.38	3	3	5	3	3	3	5	6	8	2.3	2.0	3.0	4.0	1.0	2.0						
24	466	SBR	1	1	8	24.13	3	3	5	3	3	3	5	4	7	1.7	1.3	3.0	3.0	3.0	2.0						
25	473	SBR	1	1	8	28.89	3	3	5	3	3	3	1	5	7	1.7	1.3	3.0	2.3	2.3	2.0						
26	476	SBPR	1	1	8	28.52	3	3	5	3	3	3	5	5	7	2.0	1.3	3.0	2.7	1.7	1.0						
27	480	SBPR	1	1	3	29.02	3	3	5	3	3	3	7	4	7	2.0	1.7	2.7	2.3	3.0	2.0						
28	482	SBPR	1	1	8	25.29	3	3	7	5	3	3	1	5	7	3.0	2.7	3.0	3.0	2.0	1.7						
29	487	SBPR	1	1	8	27.51	3	3	7	3	3	3	5	5	7	2.0	1.7	2.7	2.7	2.7	3.0						
30	489	MD	1	1	8	35.71	3	3	5	5	5	3	5	5	7	3.0	3.0	2.7	2.3	1.7	1.7						
31	492	MD	1	1	3	27.60	3	3	5	3	3	3	5	4	7	2.3	3.0	2.7	3.0	2.7	1.0						
32	493	MD	1	1	8	34.05	3	3	5	3	3	3	1	4	7	2.7	2.7	3.0	2.7	1.7	2.0						
33	495	MD	1	1	8	26.31	3	3	5	3	3	3	1	5	7	3.0	3.0	2.7	2.7	1.7	1.7						
34	506	MD	1	1	1	25.36	3	3	7	3	3	3	5	5	7	2.3	3.0	3.0	2.3	1.3	2.0						

Trait number →		32		33	34	35	36	37	39	40	41	42	43	44	45					
Serial number	ICSB number	Grain form		Grain color	1000 grain mass (g)	Grain shape-dorsal view	Grain shape-profile view	Grain germ size	Endosperm texture	Albumen color	Grain lustre		Days to seedling emergence		Leaf glossy score		Seedling vigor score		Plant aspect score	
		Rainy	Postrainy								Postrainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
35	509	MD	1	1	1	24.89	3	3	5	5	3	7	4	7	2.7	2.7	2.0	1.7	1.7	2.0
36	511	MD	1	1	8	25.01	3	3	5	3	3	1	6	8	3.0	3.0	3.0	4.3	2.7	2.0
37	513	MD	1	1	1	26.85	3	3	5	3	3	5	5	7	3.0	3.0	3.0	2.7	1.3	1.0
38	517	MD	1	1	8	31.00	2	5	3	3	3	5	5	7	3.0	2.7	3.0	3.0	1.3	1.3
39	519	MD	1	1	1	26.76	3	3	5	3	3	7	4	7	3.0	2.7	2.3	2.0	1.3	1.3
40	521	MD	1	1	8	31.52	3	3	7	3	3	5	4	7	2.7	2.7	2.7	1.7	1.3	2.0
41	522	MD	1	1	8	33.82	3	3	5	3	3	5	4	7	3.0	2.7	2.3	2.0	2.7	2.3
42	523	MD	1	1	8	27.35	3	3	7	3	3	1	5	6	2.7	3.0	2.3	1.3	2.0	2.3
43	524	MD	1	1	8	29.32	3	3	7	3	3	5	4	6	3.0	2.7	2.7	1.7	2.3	2.3
44	525	MD	1	1	8	30.52	3	3	5	3	3	5	4	6	3.0	3.0	2.0	2.0	3.0	2.3
45	527	MD	1	1	8	29.83	3	3	5	3	3	1	5	7	3.0	3.0	2.7	2.3	1.7	1.3
46	528	MD	1	1	1	26.73	3	3	5	3	3	5	5	7	1.0	1.3	3.0	1.7	1.3	2.3
47	533	MD	1	1	8	31.02	3	3	5	3	3	1	4	7	3.0	2.7	2.3	2.0	2.3	1.7
48	534	MD	1	1	8	25.87	3	3	5	3	3	1	5	7	3.0	2.7	2.3	1.7	1.0	1.7
49	536	MD	1	1	8	30.05	3	3	5	3	3	1	5	7	2.7	1.7	3.0	1.7	2.0	1.7
50	542	MD	1	1	8	29.51	3	3	5	3	3	5	5	7	3.0	3.0	3.0	2.0	2.7	2.0
51	543	MD	1	1	8	25.14	3	3	5	3	3	1	4	7	3.0	3.0	2.3	1.7	1.7	1.7
52	545	MD	1	1	8	24.89	3	3	5	3	3	5	4	6	3.0	3.0	1.3	1.0	1.7	2.0
53	549	HB	1	1	1	31.67	3	3	5	3	3	1	5	7	3.0	2.7	2.3	1.7	3.0	2.0
54	550	HB	1	1	1	25.06	3	3	5	3	3	1	4	6	2.7	1.7	1.7	1.3	2.7	2.7
55	553	HB	1	1	8	33.67	3	3	5	3	3	1	5	6	2.7	2.7	2.3	1.3	2.7	2.3
56	563	HB	1	1	1	30.83	3	3	5	3	3	7	4	6	2.7	2.7	2.0	1.0	1.7	2.3
57	565	HB	1	1	1	31.03	3	3	5	3	3	5	4	6	2.0	2.3	2.3	1.0	2.7	2.3
Control																				
58	296 B	High yield	1	1	8	28.99	3	3	5	5	3	1	6	8	2.7	1.3	3.0	2.7	1.0	1.7
Mean			-	-	-	28.89	-	-	-	-	-	-	5	7	2.44	2.28	2.74	2.39	2.00	2.01
SE ±			-	-	-	1.22	-	-	-	-	-	-	0.39	0.22	0.25	0.27	0.24	0.27	0.26	0.22
CV (%)			-	-	-	7.29	-	-	-	-	-	-	13.65	5.35	17.42	20.47	15.48	19.44	22.95	18.62
CD (5%)			-	-	-	3.40	-	-	-	-	-	-	1.09	0.91	0.69	0.72	0.68	0.73	0.74	0.71

Serial number		ICSB number	Trait number →		46		47		48	49	50	51	52	53	54	55	56		57
			Panicle yield (t ha ⁻¹)	Grain yield (t ha ⁻¹)	Panicle yield (t ha ⁻¹)	Grain yield (t ha ⁻¹)	Seed set % in A-line under high atmospheric temperature	Seed set % in A-line under open pollination									Shoot fly dead hearts%	Shoot fly dead hearts%	
		Trait	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Summer	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Rainy
1	409	SFR	4.9	4.8	3.8	4.1	40	-	-	-	-	-	-	-	-	-	-	-	-
2	410	SFR	4.4	5.0	3.4	4.3	50	-	-	-	-	-	-	-	-	-	-	-	-
3	411	SFR	4.5	4.0	3.5	3.1	0	60	76.3	-	-	-	-	-	-	-	-	-	-
4	412	SFR	3.8	4.0	3.0	3.0	0	60	76.3	-	-	-	-	-	-	-	-	-	-
5	417	SFR	2.8	2.7	1.9	1.8	0	-	59.9	-	-	-	-	-	-	-	-	-	-
6	421	SFR	3.5	3.5	2.5	2.6	0	55	61.2	-	-	-	-	-	-	-	-	-	-
7	424	SFR	3.3	3.2	2.6	2.8	0	75	80.2	-	-	-	-	-	-	-	-	-	-
8	426	SFR	4.1	3.1	2.8	2.2	0	30	78.3	-	-	-	-	-	-	-	-	-	-
9	427	SFR	3.0	4.2	2.1	3.4	0	60	77.4	-	-	-	-	-	-	-	-	-	-
10	430	SFR	3.6	3.7	2.9	3.1	0	30	68.7	-	-	-	-	-	-	-	-	-	-
11	436	SFR	4.7	5.1	3.6	4.3	0	60	94.5	-	-	-	-	-	-	-	-	-	-
12	437	SFR	3.1	4.1	2.1	3.2	0	40	-	23	-	-	-	-	-	-	-	-	-
13	438	SFR	2.8	4.1	2.1	3.3	0	50	-	24	-	-	-	-	-	-	-	-	-
14	439	SFR	4.2	4.7	3.2	4.0	0	40	-	27	-	-	-	-	-	-	-	-	-
15	441	SFR	4.1	3.9	3.0	2.9	0	40	-	22	-	-	-	-	-	-	-	-	-
16	442	SFR	3.6	3.6	2.6	2.7	0	20	-	20	-	-	-	-	-	-	-	-	-
17	447	SFR	3.9	4.2	2.8	3.2	0	30	-	16	-	-	-	-	-	-	-	-	-
18	448	SFR	4.9	4.8	4.0	3.5	0	80	-	17	-	-	-	-	-	-	-	-	-
19	455	SFR	3.5	2.5	2.4	1.9	0	65	-	5	-	-	-	-	-	-	-	-	-
20	456	SFR	3.1	1.7	1.9	1.1	10	45	-	8	-	-	-	-	-	-	-	-	-
21	458	SFR	3.1	4.2	2.2	3.3	10	15	-	20	-	-	-	-	-	-	-	-	-
22	459	SFR	3.9	2.6	2.9	1.9	0	20	-	41	-	-	-	-	-	-	-	-	-
23	463	SFR	4.1	3.6	3.0	2.8	0	20	-	7	-	-	-	-	-	-	-	-	-
24	466	SBR	3.1	5.1	2.4	4.3	0	75	-	-	4.9	60.9	-	-	-	-	-	-	-
25	473	SBR	3.5	3.9	2.7	3.1	20	70	-	-	5.2	50.6	-	-	-	-	-	-	-
26	476	SBPR	5.4	5.6	4.3	4.6	0	-	-	-	-	-	-	-	-	-	-	-	-
27	480	SBPR	4.2	3.1	3.0	2.5	0	55	-	-	-	-	-	-	34.6	-	-	-	-
28	482	SBPR	4.5	4.5	3.4	3.6	0	60	-	-	-	-	-	-	62.2	-	-	-	-
29	487	SBPR	2.8	2.8	2.1	2.4	40	50	-	-	-	-	-	-	29.4	-	-	-	-
30	489	MD	3.9	5.6	2.8	4.6	0	40	-	-	-	-	-	-	-	2.7	3.1	-	-
31	492	MD	3.7	6.7	2.8	5.6	0	40	-	-	-	-	-	-	-	3.9	2.1	-	-
32	493	MD	3.3	4.1	2.3	3.5	0	90	-	-	-	-	-	-	-	2.7	2.8	-	-
33	495	MD	3.0	5.8	2.1	5.1	0	40	-	-	-	-	-	-	-	3.6	3.1	-	-
34	506	MD	3.6	4.9	2.7	4.2	0	90	-	-	-	-	-	-	-	3.6	2.3	-	-

Trait number →		46		47		48	49	50	51	52	53	54	55	56	57
		Panicke yield (t ha ⁻¹)		Grain yield (t ha ⁻¹)		Seed set % in A-line under high atmospheric temperature	Seed set % in A-line under open pollination	Shoot fly dead hearts%	Shoot fly dead hearts%	Stem borer leaf feeding score	Stem borer dead hearts%	Stem borer dead hearts%	Midge score under cage	Midge score under cage	Head bug score
Serial number	ICSB number	Trait	Rainy	Postrainy	Rainy	Postrainy	Summer	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Postrainy	Postrainy	Rainy
35	509	MD	3.1	3.1	2.4	2.9	0	85	-	-	-	-	4.5	4.6	-
36	511	MD	3.9	3.3	1.9	2.5	0	90	-	-	-	-	3.7	6.8	-
37	513	MD	2.9	5.8	2.0	4.9	0	60	-	-	-	-	2.9	2.6	-
38	517	MD	3.3	5.1	2.2	4.2	0	15	-	-	-	-	3	3	-
39	519	MD	4.5	5.9	3.3	4.7	0	90	-	-	-	-	5.2	6.2	-
40	521	MD	4.2	5.0	3.2	4.3	0	60	-	-	-	-	3.4	3.8	-
41	522	MD	3.9	4.4	2.9	3.7	0	80	-	-	-	-	4.2	4.7	-
42	523	MD	4.3	4.7	3.3	4.4	0	50	-	-	-	-	4.1	4.1	-
43	524	MD	3.5	4.1	2.7	3.5	0	70	-	-	-	-	2.9	2.8	-
44	525	MD	3.3	3.5	2.4	2.7	0	30	-	-	-	-	3.2	4.4	-
45	527	MD	3.2	6.2	2.3	4.6	0	20	-	-	-	-	3	2.5	-
46	528	MD	3.9	3.5	2.9	3.0	0	50	-	-	-	-	4.2	6.5	-
47	533	MD	3.9	5.1	2.7	4.0	0	40	-	-	-	-	3.2	4.1	-
48	534	MD	4.3	5.4	3.1	4.5	0	70	-	-	-	-	3.4	3.4	-
49	536	MD	4.5	4.5	3.2	3.7	0	60	-	-	-	-	3.2	2.6	-
50	542	MD	2.4	3.7	1.7	2.8	20	85	-	-	-	-	3.4	3.2	-
51	543	MD	3.6	4.2	2.6	2.7	60	85	-	-	-	-	3.2	4.7	-
52	545	MD	3.8	2.6	3.0	2.0	0	-	-	-	-	-	-	-	-
53	549	HB	3.1	4.0	2.4	3.3	0	75	-	-	-	-	-	-	5.7
54	550	HB	3.1	4.8	2.4	4.0	0	70	-	-	-	-	-	-	4.3
55	553	HB	3.8	4.1	2.8	3.3	0	35	-	-	-	-	-	-	4
56	563	HB	4.4	5.0	3.8	4.2	0	30	-	-	-	-	-	-	3.7
57	565	HB	3.0	3.6	2.4	3.2	0	70	-	-	-	-	-	-	5.3
Control															
58	296 B	High yield	4.2	3.4	3.0	2.3	-	-	-	-	-	-	-	-	-
Mean			3.71	4.14	2.73	3.33	-	-	-	-	-	-	-	-	-
SE ±			0.38	0.28	0.32	0.25	-	-	-	-	-	-	-	-	-
CV (%)			17.73	11.53	20.17	13.19	-	-	-	-	-	-	-	-	-
CD (5%)			1.06	1.09	0.89	0.95	-	-	-	-	-	-	-	-	-

	Trait number →	1	2	3	4	5	6	7	8	9	10										
Serial number	ICSB number Trait	Coleoptile color		Fifth leaf sheath color		Leaf midrib color		Days to 50% flowering		Plant height (m) at flowering		Flag leaf: Extension of discoloration of mid rib		Flag leag: intensity of midrib compared to the blade		Flag leaf: yellow coloration of mid rib		Glume hair color		Lemna: arista formation	
		Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
		2	1	3	1	2	2	2	81	98	1.2	0.9	1	1	2	2	1	1	1	1	1
1	428	SFR	2	1	3	1	2	2	2	78	84	1.4	1.0	1	1	2	2	1	1	1	1
2	433	SFR	2	1	3	1	2	2	2	78	84	1.4	1.0	1	1	2	2	1	1	1	1
3	434	SFR	2	1	3	1	2	2	2	78	84	1.4	1.0	1	1	2	2	1	1	1	1
4	443	SFR	2	2	3	3	2	2	2	80	83	1.0	0.7	1	1	2	2	1	1	1	1
5	453	SFR	2	2	3	3	2	2	2	81	85	1.7	1.0	1	1	2	2	1	1	1	1
6	468	SBR	1	1	1	1	2	2	2	78	87	1.2	0.8	1	1	2	2	1	1	1	1
7	526	MD	1	1	1	1	2	2	2	82	83	1.0	0.7	1	1	2	2	1	1	1	1
8	530	MD	1	1	1	1	2	2	2	78	98	1.3	0.9	5	1	2	2	1	1	1	1
9	558	MD	1	1	1	1	2	2	2	77	86	1.2	0.8	1	1	2	2	1	1	1	1
Control																					
10	296 B	High yield	2	1	3	1	2	2	2	79	95	1.1	0.8	1	1	2	2	1	1	1	5
Mean			-	-	-	-	-	-	-	79	87	1.55	1.05	-	-	-	-	-	-	-	-
SE ±			-	-	-	-	-	-	-	0.86	1.22	0.03	0.02	-	-	-	-	-	-	-	-
CV (%)			-	-	-	-	-	-	-	1.87	2.42	3.26	3.67	-	-	-	-	-	-	-	-
D (5%)			-	-	-	-	-	-	-	2.54	3.47	0.09	0.07	-	-	-	-	-	-	-	-

Trait No. 1-41 : Triats stipulated in the DUS-test guidelines (Trait no 38 was not recorded in the current trials).

Trait No. 49-55: Monitored traits recorded in various trials conducted earlier at ICRISAT.

Trait number →																						
Serial number	ICSB number	Trait	Stigma: anthocyanin coloration		Stigma: yellow coloration		Stigma length		Pedicellate flower length		Length of anther		Dried anther color		Glume color		Plant height (m) at maturity		Stem thickness (mm)		Juicy score	
			Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
1	428	SFR	1	1	1	1	5	5	7	5	3	5	1	4	1	1	1.5	1.2	19.8	20.1	1	1
2	433	SFR	1	1	1	1	3	3	5	5	5	5	1	4	4	4	1.7	1.2	17.9	16.9	1	1
3	434	SFR	1	1	5	1	5	3	5	5	5	5	1	4	1	2	1.8	1.3	17.1	18.8	1	1
4	443	SFR	1	1	1	1	5	5	5	5	5	5	1	4	2	2	1.2	1.0	20.2	20.1	1	1
5	453	SFR	1	1	1	1	3	3	5	5	5	3	4	1	4	4	2.1	1.3	17.5	16.1	1	1
6	468	SBR	1	1	1	5	5	5	5	5	5	5	1	4	4	4	1.5	1.0	20.1	18.6	1	1
7	526	MD	1	1	1	1	5	5	5	3	5	5	4	1	5	4	1.2	1.0	20.4	19.1	2	1
8	530	MD	1	1	1	1	5	5	5	5	5	5	4	4	4	1	1.6	1.1	19.0	19.5	1	1
9	538	MD	1	1	1	5	5	5	5	3	3	5	4	4	7	7	1.6	1.1	16.6	16.7	2	1
Control																						
10	296 B	High yield	1	1	1	1	9	5	3	5	3	5	4	4	1	2	1.4	1.0	20.2	19.5	2	2
Mean			-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.86	1.29	18.85	17.10	-	-
SE ±			-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.04	0.03	1.12	0.74	-	-
CV (%)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.74	4.26	10.31	7.45	-	-
CD (5%)			-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.12	0.11	3.33	3.07	-	-

Trait number →			21		22		23		24		25		26		27		28		29		30		31	
Serial number	ICSB number	Trait	Brax reading (%)		Leaf length (cm)		Leaf width (cm)		Panicle length (cm)		Panicle branch length (cm)		Panicle compactness		Panicle shape		Panicle exertion (cm)		Glume coverage (%)		Shattering		Thresholdability %	
			Rainy	Posrainy	Rainy	Posrainy	Rainy	Posrainy	Rainy	Posrainy	Rainy	Posrainy	Rainy	Posrainy	Rainy	Posrainy	Rainy	Posrainy	Rainy	Posrainy	Rainy	Posrainy	Rainy	Posrainy
1	428	SFR	10.0	20.3	68.0	61.0	9.4	6.7	24.1	20.1	8.2	5.7	5	7	3	3	7.3	8.7	33.3	25.0	1	1	1	1
2	433	SFR	9.3	15.3	60.4	55.8	8.3	6.8	28.6	21.6	9.2	6.6	5	7	3	3	5.3	7.0	25.0	41.7	1	1	1	1
3	434	SFR	14.7	17.7	61.8	54.7	8.8	6.6	28.7	22.8	9.0	6.6	5	7	3	3	6.3	6.7	25.0	25.0	1	1	1	1
4	443	SFPR	11.3	12.0	79.0	60.3	9.6	7.4	28.6	25.3	7.9	7.8	7	5	3	3	1.0	1.0	25.0	25.0	1	1	1	1
5	453	SFPR	14.3	16.3	60.0	57.0	8.0	6.6	24.7	18.0	6.7	4.0	7	7	3	3	9.0	11.0	25.0	25.0	1	1	1	1
6	468	SBR	14.0	16.7	63.9	56.0	8.3	6.6	29.2	22.8	8.0	5.0	5	7	3	3	7.0	3.7	33.3	40.0	1	1	1	1
7	526	MD	16.0	16.3	78.3	53.6	8.3	6.2	23.5	20.4	6.0	5.3	7	7	3	3	0.0	6.0	50.0	25.0	1	1	1	1
8	530	MD	13.7	10.3	56.0	63.9	8.1	7.4	22.3	21.1	5.8	4.4	7	7	3	3	0.0	1.0	25.0	33.3	1	1	1	1
9	538	MD	6.0	15.7	56.0	58.8	8.7	7.6	29.4	25.9	7.7	6.6	7	5	3	3	7.3	5.3	25.0	25.0	1	1	1	1
Control																								
10	296 B	High yield	9.7	15.3	67.4	60.7	8.0	6.6	30.9	25.3	6.3	6.0	7	7	3	3	0.0	1.3	25.0	25.0	1	1	1	1
Mean			12.51	16.03	64.97	57.07	8.68	6.65	25.62	20.87	7.15	5.38	-	-	-	-	4.32	5.90	38.41	41.12	-	-	-	-
SE ±			0.63	0.96	2.54	1.68	0.48	0.28	1.41	0.76	0.82	0.41	-	-	-	-	0.53	0.59	3.02	4.71	-	-	-	-
CV (%)			8.75	10.36	6.77	5.09	9.56	7.32	9.53	6.28	19.76	13.08	-	-	-	-	21.45	17.36	13.62	19.85	-	-	-	-
CD (5%)			1.88	2.39	7.54	6.70	1.42	1.26	4.19	3.36	2.42	1.96	-	-	-	-	1.59	1.64	8.97	11.51	-	-	-	-

Serial number		ICSB number	Trait number →		33	34	35	36	37	39	40	41	42		43		44		45		46		47	
			Grain form	Trait									Days to seedling emergence	Leaf glossy score	Seedling vigor score	Plant aspect score	Panicle yield (t ha ⁻¹)	Grain yield (t ha ⁻¹)						
			Rainy	Postrainy	Grain color	1000-grain mass (g)	Grain shape-dorsal view	Grain shape-profile view	Grain germ size	Endosperm texture	Albumen color	Grain lustre	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
1	428	SFR	1	1	8	26.08	3	3	5	3	3	5	6	7	2.3	1.7	2.7	2.7	2.0	2.0	3.3	3.5	2.4	2.3
2	433	SFR	1	1	8	27.93	3	3	5	5	3	7	6	7	2.0	1.3	2.7	3.0	1.3	2.0	4.6	5.2	3.5	4.3
3	434	SFR	1	1	8	27.66	3	3	5	5	3	5	6	7	2.7	1.7	3.0	3.0	1.3	1.7	4.5	4.7	3.5	4.4
4	443	SFPR	1	1	1	30.11	3	3	5	5	3	5	7	8	2.0	2.3	3.0	4.0	1.0	2.0	3.8	5.9	2.6	4.8
5	453	SFPR	1	1	8	27.01	3	3	5	5	3	5	6	7	2.3	1.3	3.0	3.0	2.0	2.7	2.4	3.0	1.8	2.5
6	468	SBR	1	1	8	25.79	3	3	5	3	3	1	6	7	2.7	2.0	2.7	2.7	1.7	2.0	3.9	3.6	2.9	3.1
7	526	MD	1	1	8	30.23	2	2	5	5	3	7	6	7	3.0	3.0	2.5	2.7	2.5	1.3	4.4	4.7	3.3	4.0
8	530	MD	1	1	8	31.11	3	3	5	3	3	5	6	7	3.0	3.0	3.0	2.3	2.0	1.0	4.4	5.0	3.1	4.1
9	538	MD	1	1	8	31.95	3	3	5	5	3	1	5	6	3.0	3.7	1.3	1.3	1.7	2.0	4.4	5.2	3.3	4.1
Control																								
10	296 B	High yield	1	1	8	27.78	3	3	5	5	3	1	6	8	2.3	3.0	3.3	3.3	1.0	1.7	3.9	3.5	2.9	2.3
Mean			-	-	-	27.01	-	-	-	-	-	-	6	7	2.39	2.18	2.80	2.54	1.76	2.03	3.83	4.20	2.79	3.31
SE ±			-	-	-	0.74	-	-	-	-	-	-	0.23	0.16	0.21	0.27	0.26	0.26	0.20	0.18	0.40	0.27	0.31	0.18
CV (%)			-	-	-	4.72	-	-	-	-	-	-	6.60	3.97	15.47	21.35	15.76	17.84	19.99	15.66	18.19	10.95	19.34	9.41
CD (5%)			-	-	-	2.15	-	-	-	-	-	-	0.67	0.64	0.63	0.77	0.76	0.76	0.60	0.57	1.19	1.22	0.93	0.90

Trait number →			48	49	50	51	52	53	54	55
Serial number	ICSB number	Trait	Seed set % in A-line under high atmospheric temperature	Seed set % in A-line under open pollination	Shoot fly dead hearts%	Shoot fly dead hearts%	Stem borer leaf feeding score	Stem borer dead hearts%	Midge score	Midge score under cage
			Summer	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
1	428	SFR	0	20	51.3	-	-	-	-	-
2	433	SFR	40	60	59.6	-	-	-	-	-
3	434	SFR	40	70	58.4	-	-	-	-	-
4	443	SFPR	0	50	-	26	-	-	-	-
5	453	SFPR	0	65	-	13	-	-	-	-
6	468	SBR	0	45	-	-	4.9	44.4	-	-
7	526	MD	0	55	-	-	-	-	3.2	3.1
8	530	MD	0	45	-	-	-	-	4.3	5.1
9	538	MD	0	65	-	-	-	-	3.1	2.7
Control										
10	296 B	High yield	-	-	-	-	-	-	-	-
Mean			-	-	-	-	-	-	-	-
SE ±			-	-	-	-	-	-	-	-
CV (%)			-	-	-	-	-	-	-	-
CD (5%)			-	-	-	-	-	-	-	-

Annexure I-12. Characteristics of high yielding (Early maturity) sorghum R-lines evaluated during the rainy and post-rainy seasons, 2005 at ICRISAT-Patancheru.

Trait number	Serial number	1		2		3		4		5		6		7		8		9		10	
		Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy
1	32	2	2	3	3	2	2	69	82	1.0	0.7	3	7	2	-	1	1	1	1	1	1
2	45	1	1	1	1	2	2	67	86	1.1	0.8	1	3	2	2	1	1	1	1	1	1
3	46	2	2	3	3	2	2	84	88	1.7	1.1	1	1	2	2	1	1	1	1	1	1
4	54	1	1	1	1	3	2	72	85	1.2	0.8	7	7	-	-	1	1	1	1	1	1
5	55	2	1	3	3	3	2	68	80	1.4	0.9	7	7	-	-	1	1	1	1	1	1
6	59	2	1	3	1	2	2	64	79	1.0	0.8	1	3	2	-	1	1	1	1	1	1
7	60	1	1	1	1	2	2	67	81	1.3	0.8	1	3	2	-	1	1	1	1	1	1
8	61	2	1	3	1	2	2	67	80	1.1	0.8	1	3	2	-	1	1	1	1	1	1
9	64	2	2	3	1	2	2	67	74	1.3	0.9	1	3	2	-	1	1	1	1	1	1
10	69	1	1	1	1	2	2	70	72	1.2	0.8	1	1	2	2	1	1	1	1	1	1
11	79	1	1	1	1	2	2	77	93	1.1	0.8	1	1	2	2	1	1	1	1	1	1
12	80	2	2	3	1	2	2	69	79	2.0	1.3	1	3	2	-	1	1	1	1	1	1
13	81	2	2	3	3	2	2	73	93	1.4	0.9	1	1	2	2	1	1	1	1	1	1
14	88	1	1	1	1	2	2	73	94	0.8	0.8	3	1	-	2	1	1	1	1	1	1
15	94	1	1	1	1	2	2	72	87	1.1	0.8	7	7	-	2	1	1	1	1	1	1
16	97	2	2	3	3	2	2	75	85	1.2	0.8	1	1	2	2	1	1	1	1	1	1
17	105	1	1	1	1	2	2	69	82	1.3	0.9	1	7	2	-	1	1	1	1	1	1
18	113	1	1	1	1	2	2	68	83	1.3	0.9	1	1	2	2	1	1	1	1	1	1
19	121	1	1	1	1	2	2	67	84	1.4	1.0	1	3	2	-	1	1	1	1	1	1
20	124	1	1	1	1	2	2	75	93	1.8	1.0	1	1	2	2	1	1	1	1	1	1
21	137	2	2	3	3	2	2	68	77	1.4	1.0	1	3	2	-	1	1	1	1	1	1
22	138	2	2	3	3	2	2	68	79	1.3	0.9	1	7	2	-	1	1	1	1	1	1
23	142	1	1	1	1	2	2	66	78	1.2	0.8	1	1	2	2	1	1	1	1	1	1
24	148	1	1	1	1	2	2	73	95	1.4	1.0	1	1	2	2	1	1	1	1	1	1
25	151	2	1	3	3	2	2	69	78	1.7	1.1	1	1	2	2	1	1	1	1	1	1
26	89007	2	2	3	3	2	1	66	82	1.4	1.0	1	1	2	-	1	1	1	1	1	1
27	89029	1	1	1	1	2	2	73	84	1.6	1.0	3	3	-	-	1	1	1	1	1	1
28	89033	1	1	1	1	3	2	70	76	1.4	0.9	7	1	2	2	1	1	1	1	1	1
29	89035	2	2	3	1	2	2	61	72	1.1	0.8	1	1	2	2	1	1	1	1	1	1
30	89036	2	1	3	1	3	2	71	80	1.6	0.8	7	7	-	-	1	1	1	1	1	1
31	89038	2	2	3	3	2	2	64	84	1.2	0.9	1	3	2	-	1	1	1	1	1	1
32	89039	2	1	3	1	2	2	65	81	1.3	1.0	1	1	2	2	1	1	1	1	1	1
33	89044	1	1	1	1	2	2	62	78	1.3	0.9	1	7	2	-	1	1	1	1	1	1
34	89050	2	2	3	3	2	2	64	82	1.2	0.9	1	1	2	-	1	1	1	1	1	1
35	89066	2	2	3	3	2	2	67	77	1.0	0.7	1	1	2	2	1	1	1	1	1	1

Trait number →		1		2		3		4		5		6		7		8		9		10	
Serial number	ICSR number	Coleoptile color		Fifth leaf sheath color		Leaf midrib color		Days to 50% flowering		Plant height (m) at flowering		Flag leaf: Extension of discoloration of mid rib		Flag leaf: intensity of green coloration of midrib compared to the blade		Flag leaf: yellow coloration of mid rib		Glume hair color		Lemma: arista formation	
		Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
36	89067	2	2	3	3	2	2	74	87	1.4	1.0	1	1	2	2	1	1	1	1	1	3
37	89074	2	2	3	3	2	2	67	81	1.7	0.9	1	1	2	-	1	1	1	1	5	5
38	90014	1	1	1	1	3	3	71	85	1.5	1.1	7	7	-	-	1	1	1	1	1	1
39	90015	2	2	3	3	2	2	71	86	1.8	1.3	1	3	2	-	1	1	1	1	1	1
40	90025	2	2	3	3	2	2	69	78	2.4	1.7	1	1	2	2	1	1	1	1	1	1
41	91001	1	1	1	1	2	2	65	79	1.1	0.8	1	1	2	2	1	1	1	1	1	1
42	91002	2	2	3	3	2	2	67	72	1.3	0.8	1	1	2	2	1	1	1	1	1	1
43	91003	1	1	1	1	2	2	69	94	1.6	1.0	1	1	2	2	1	1	1	1	1	1
44	91004	1	1	1	1	2	2	68	82	1.5	1.1	1	1	2	2	1	1	1	1	1	1
45	91021	2	2	3	3	2	2	66	81	1.3	0.9	1	3	2	-	1	1	1	1	1	1
46	91022	2	2	3	3	2	2	68	86	1.5	1.1	1	1	2	-	1	1	1	1	1	1
47	91029	1	1	1	1	3	3	66	75	1.3	0.9	7	7	-	-	1	1	1	1	1	1
48	92015	2	2	3	3	2	2	60	77	1.9	1.6	1	1	2	2	1	1	1	1	9	5
Control																					
49	CSV 4	2	1	3	1	2	2	68	75	1.1	0.8	1	3	2	-	1	1	1	1	1	1
50	RS 29	2	2	3	1	2	2	73	86	1.8	1.3	1	1	2	2	1	1	1	1	1	1
Mean		-	-	-	-	-	-	69	82	1.37	0.95	-	-	-	-	-	-	-	-	-	-
SE ±		-	-	-	-	-	-	1.04	1.09	0.04	0.03	-	-	-	-	-	-	-	-	-	-
CV (%)		-	-	-	-	-	-	2.61	2.31	5.20	5.04	-	-	-	-	-	-	-	-	-	-
CD (5%)		-	-	-	-	-	-	2.92	3.14	0.12	0.10	-	-	-	-	-	-	-	-	-	-

Trait No. 1-41 : Traits stipulated in the DUS-test guidelines (Trait no 38 was not recorded in the current trials).

Trait No. 42-47 : Ancillary traits recorded in the current trials.

Trait No. 48-50 : Monitored traits recorded in various trials conducted earlier at ICRI SAT.

Serial number	Trait number →	11		12		13		14		15		16		17		18		19		20		21	
		Stigma: anthocyanin coloration		Stigma: yellow coloration		Stigma length		Pedicellate flower length		Length of anther		Dried anther color		Glume color		Plant height (m) at maturity		Stem thickness (mm)		Juicy score		Brix reading (%)	
		Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
1	32	1	1	5	1	5	5	5	3	5	5	4	6	2	2	1.3	1.0	19.3	21.1	1	1	5.7	16.0
2	45	1	1	1	1	3	5	5	5	5	5	4	6	5	4	1.2	1.0	21.9	19.2	1	1	9.7	15.3
3	46	1	1	5	1	3	3	5	5	5	5	4	5	4	5	1.9	1.4	20.5	20.6	1	1	16.0	17.0
4	54	1	1	1	1	5	5	5	3	5	5	6	4	5	7	1.6	1.1	20.3	20.2	1	2	7.3	20.3
5	55	1	1	5	1	5	3	7	5	5	5	4	4	2	2	1.6	1.2	18.5	16.4	1	1	10.7	16.0
6	59	1	1	5	1	3	5	5	5	5	5	4	4	4	2	1.4	1.0	19.5	19.2	1	1	8.0	17.7
7	60	1	1	1	1	3	5	5	5	5	5	4	4	4	4	1.6	1.1	14.7	18.1	1	1	12.7	14.0
8	61	1	1	5	1	3	3	5	5	5	3	4	4	2	2	1.2	1.0	21.4	17.6	2	1	4.3	14.3
9	64	1	1	7	5	5	3	5	3	5	3	7	4	2	2	1.6	1.2	18.5	18.3	1	1	9.0	14.3
10	69	1	1	5	1	5	3	7	5	5	5	4	4	2	2	1.5	1.1	19.0	15.9	1	1	6.7	15.0
11	79	1	1	1	1	5	5	3	5	5	3	4	4	4	7	1.3	1.0	19.7	18.3	1	1	6.3	15.7
12	80	1	1	7	5	3	5	3	5	5	5	4	4	2	2	2.2	1.5	16.3	15.3	1	1	14.0	15.0
13	81	1	1	1	1	5	5	5	5	7	5	6	4	2	3	1.6	1.1	18.1	17.9	1	1	12.7	15.0
14	88	1	1	7	5	5	5	5	5	3	3	4	6	1	6	1.1	1.0	24.2	23.9	1	1	3.7	12.7
15	94	1	1	5	1	9	5	7	7	5	5	6	6	4	4	1.3	1.0	19.0	19.8	2	1	5.7	10.3
16	97	1	1	5	1	5	5	5	5	5	3	4	4	4	6	1.5	1.1	19.0	21.7	1	1	7.3	17.7
17	105	1	1	7	5	3	3	7	7	5	5	4	4	4	4	1.7	1.2	19.6	21.1	2	1	3.7	17.0
18	113	1	1	7	1	3	5	5	5	5	5	4	4	4	2	1.7	1.3	20.6	20.9	2	1	6.3	18.7
19	121	1	1	1	1	3	5	5	5	5	5	4	6	5	5	1.8	1.3	18.6	20.2	2	1	10.0	16.7
20	124	1	1	1	1	5	5	5	5	5	5	4	4	5	7	2.1	1.3	20.4	22.1	1	1	13.3	13.0
21	137	1	1	5	1	3	3	5	3	5	5	4	4	2	2	1.8	1.4	18.8	19.0	1	2	12.3	10.3
22	138	1	1	5	1	5	3	5	5	5	5	7	4	4	5	1.7	1.3	17.2	17.6	1	1	13.7	18.7
23	142	1	1	5	1	3	3	5	5	5	5	4	6	4	4	1.6	1.1	19.2	19.7	1	1	9.0	12.7
24	148	1	1	7	1	3	3	5	5	5	5	4	4	2	1	1.8	1.3	20.4	24.2	1	1	9.0	15.3
25	151	1	1	5	1	5	3	5	3	5	5	7	4	4	1	2.0	1.4	17.4	18.2	1	1	13.0	15.7
26	89007	1	1	7	5	5	5	5	7	5	5	4	4	4	4	1.7	1.3	20.4	19.2	1	1	9.3	16.3
27	89029	1	1	7	7	3	5	7	5	5	5	6	4	4	3	2.0	1.4	17.3	19.4	1	1	10.7	16.3
28	89033	1	1	7	1	3	3	7	5	5	5	6	4	4	7	1.7	1.3	17.9	16.3	2	2	9.0	18.3
29	89035	1	1	1	1	3	3	5	5	5	5	4	7	2	5	1.4	1.1	20.2	18.2	1	1	9.0	10.7
30	89036	1	1	7	5	5	5	7	7	5	5	4	4	5	7	1.9	1.1	19.1	21.9	1	1	13.0	12.3
31	89038	1	1	7	5	5	5	5	5	5	5	4	4	7	4	1.4	1.1	19.0	19.9	1	1	9.3	15.0
32	89039	1	1	5	1	3	5	3	5	5	5	4	4	2	2	1.6	1.3	17.0	16.6	1	1	15.0	13.3
33	89044	1	1	1	1	3	3	5	3	3	5	4	4	2	2	1.7	1.2	16.7	17.8	1	1	12.3	15.3
34	89050	1	1	1	1	3	5	5	5	5	5	3	4	4	2	1.4	1.1	20.1	20.7	1	1	6.0	16.7
35	89066	1	1	5	1	3	3	5	5	5	5	7	7	1	2	1.3	1.0	17.7	16.6	1	1	6.3	17.0

Serial number	Trait number →	11		12		13		14		15		16		17		18		19		20		21	
		Stigma: anthocyanin coloration		Stigma: yellow coloration		Stigma length		Pedicellate flower length		Length of anther		Dried anther color		Glume color		Plant height (m) at maturity		Stem thickness (mm)		Juicy score		Brix reading (%)	
	ICSR number	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
36	89067	1	1	1	1	5	5	7	5	7	5	6	4	8	7	1.7	1.3	20.3	18.9	1	2	10.7	10.7
37	89074	1	1	1	1	9	9	7	5	5	5	4	6	7	7	2.0	1.3	19.4	18.1	1	1	9.7	14.7
38	90014	1	1	5	1	5	5	5	5	5	5	4	4	5	4	1.7	1.3	18.1	17.5	2	2	6.0	16.0
39	90015	1	1	5	1	3	3	5	5	5	5	7	4	5	5	2.1	1.6	17.0	18.4	1	1	11.3	14.3
40	90025	1	1	1	1	5	5	7	7	5	5	4	7	7	7	2.5	2.0	17.9	15.7	1	1	12.7	16.0
41	91001	1	1	7	1	3	3	3	5	5	5	4	6	5	5	1.5	1.1	17.1	20.2	2	1	5.3	13.3
42	91002	1	1	1	1	5	3	5	3	5	5	4	4	7	7	1.5	1.1	19.9	17.0	2	1	11.0	17.7
43	91003	1	1	7	5	3	3	5	3	3	3	4	4	4	7	1.9	1.4	18.3	22.0	1	2	13.3	11.3
44	91004	1	1	1	1	3	3	5	5	5	3	4	6	4	2	1.9	1.5	18.5	17.0	1	2	7.3	14.3
45	91021	1	1	1	1	5	5	5	5	5	5	4	6	4	4	1.7	1.3	15.6	19.0	1	1	7.7	17.0
46	91022	1	1	7	5	5	5	5	5	5	5	4	4	4	7	1.9	1.3	17.3	18.7	1	1	12.0	11.3
47	91029	1	1	7	1	3	3	3	3	5	3	4	4	2	2	1.6	1.2	17.9	17.4	1	1	8.3	14.0
48	92015	1	1	5	5	9	9	5	5	5	5	4	7	7	7	2.4	1.9	18.2	17.5	1	1	15.0	18.7
Control																							
49	CSV 4	1	1	5	5	3	3	5	5	3	5	4	4	4	2	1.3	1.1	17.0	16.2	1	1	6.0	15.3
50	RS 29	1	1	5	1	3	3	5	3	5	3	4	4	4	2	2.0	1.5	18.7	17.3	1	1	12.7	15.3
Mean		-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.67	1.24	18.82	18.83	-	-	9.57	15.12
SE ±		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.05	0.03	1.08	0.94	-	-	1.13	1.47
CV (%)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.14	4.61	9.90	8.67	-	-	20.46	16.83
CD (5%)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14	0.12	3.02	2.87	-	-	3.19	3.68

Serial number		22		23		24		25		26		27		28		29		30		31		32		33						
		Leaf length (cm)	Postrainy	Leaf width (cm)	Rainy	Postrainy	Panicle length (cm)	Rainy	Postrainy	Panicle branch length (cm)	Rainy	Postrainy	Panicle compactness	Rainy	Postrainy	Panicle shape	Rainy	Postrainy	Panicle exertion (cm)	Rainy	Postrainy	Glume coverage (%)	Rainy	Postrainy	Shattering	Rainy	Postrainy	Grain form	Rainy	Postrainy
1	32	63.7	58.3	9.0	7.4	25.2	20.3	8.3	5.7	7	5	3	3	3	4.7	5.7	25.0	33.3	1	1	1	1	1	1	1	1	1	1	1	8
2	45	63.2	56.9	8.8	7.0	27.1	24.4	6.5	6.1	5	5	3	3	3	0.0	0.0	25.0	41.7	1	1	1	1	1	1	1	1	1	1	1	8
3	46	78.2	66.7	9.6	7.3	20.6	26.0	6.3	6.7	7	7	3	3	3	5.3	8.3	25.0	25.0	1	1	1	1	1	1	1	1	1	1	1	1
4	54	70.8	60.4	9.7	7.7	27.3	21.7	5.6	4.6	7	7	3	3	3	6.7	8.3	25.0	25.0	1	1	1	1	1	1	1	1	1	1	1	1
5	55	73.2	58.0	8.1	7.2	24.9	20.4	8.3	4.9	5	5	3	3	3	6.0	8.7	25.0	25.0	1	1	1	1	1	1	1	1	1	1	1	8
6	59	69.7	60.4	9.4	7.1	27.7	24.9	8.4	7.2	5	5	3	3	3	6.0	6.0	25.0	25.0	1	1	1	1	1	1	1	1	1	1	1	8
7	60	64.9	58.4	8.6	7.1	28.9	25.1	7.8	7.1	7	5	3	3	3	8.0	4.3	25.0	25.0	1	1	1	1	1	1	1	1	1	1	1	8
8	61	68.0	53.2	8.4	7.0	26.4	23.4	8.2	5.9	5	5	3	3	3	0.0	5.3	25.0	25.0	1	1	1	1	1	1	1	1	1	1	1	1
9	64	64.0	58.8	8.8	6.9	29.6	21.7	7.4	5.8	5	5	3	3	3	4.3	8.7	25.0	25.0	1	1	1	1	1	1	1	1	1	1	1	8
10	69	66.3	52.8	10.0	6.6	28.1	20.9	7.4	5.1	7	7	3	3	3	4.3	7.7	33.3	25.0	1	1	1	1	1	1	1	1	1	1	1	8
11	79	69.2	65.8	9.4	6.9	23.4	19.1	5.1	3.8	7	7	3	3	3	0.0	1.3	25.0	25.0	1	1	1	1	1	1	1	1	1	1	1	8
12	80	68.6	64.2	8.0	6.8	21.9	17.6	7.1	5.2	7	7	3	3	3	2.7	3.7	33.3	25.0	1	1	1	1	1	1	1	1	1	1	1	1
13	81	67.4	62.2	7.7	6.0	28.0	26.6	8.3	6.7	7	7	3	3	3	0.3	6.0	25.0	25.0	1	1	1	1	1	1	1	1	1	1	1	8
14	88	72.0	67.2	8.3	7.1	28.1	24.3	8.9	7.0	5	7	3	3	3	2.7	4.3	50.0	25.0	1	1	1	1	1	1	1	1	1	1	1	8
15	94	67.8	62.9	8.2	6.9	21.7	21.1	6.3	5.6	5	7	3	3	3	4.0	6.3	33.3	33.3	1	1	1	1	1	1	1	1	1	1	1	8
16	97	62.0	63.4	8.3	7.7	24.8	21.8	6.6	5.6	7	5	3	3	3	4.3	4.3	25.0	33.3	1	1	1	1	1	1	1	1	1	1	1	8
17	105	74.3	67.2	8.4	7.0	31.9	24.6	7.9	5.7	5	5	3	3	3	9.0	8.3	41.7	41.7	1	1	1	1	1	1	1	1	1	1	1	8
18	113	70.9	64.4	9.1	7.7	33.3	28.4	9.3	8.7	5	5	3	3	3	10.3	12.0	25.0	33.3	1	1	1	1	1	1	1	1	1	1	1	1
19	121	66.3	64.1	9.6	7.3	25.9	25.3	7.1	6.4	5	5	3	3	3	9.7	7.7	25.0	25.0	1	1	1	1	1	1	1	1	1	1	1	1
20	124	70.1	64.2	8.7	7.7	26.0	22.1	7.9	6.2	7	7	3	3	3	4.3	7.3	25.0	25.0	1	1	1	1	1	1	1	1	1	1	1	8
21	137	71.9	57.6	8.3	5.7	35.2	26.9	9.7	7.0	5	5	3	3	3	9.0	12.7	25.0	33.3	1	1	1	1	1	1	1	1	1	1	1	1
22	138	68.6	60.8	7.1	6.2	30.6	25.6	7.3	6.3	7	5	3	3	3	8.0	13.0	25.0	41.7	1	1	1	1	1	1	1	1	1	1	1	3
23	142	64.6	55.4	8.3	6.7	23.8	19.4	6.2	5.6	7	7	3	3	3	11.0	14.3	25.0	33.3	1	1	1	1	1	1	1	1	1	1	1	8
24	148	74.1	65.3	9.3	7.2	23.8	21.2	6.6	6.1	7	7	3	3	3	13.7	10.7	25.0	25.0	1	1	1	1	1	1	1	1	1	1	1	8
25	151	62.9	59.9	8.7	6.1	25.4	20.2	7.7	5.3	7	7	3	4	5.3	15.3	25.0	25.0	1	1	1	1	1	1	1	1	1	1	1	1	8
26	89007	67.8	57.6	8.3	7.0	26.2	22.1	7.7	6.4	5	5	3	3	3	11.3	13.0	25.0	50.0	1	1	1	1	1	1	1	1	1	1	1	8
27	89029	72.8	68.9	8.9	6.6	32.4	26.7	7.7	5.6	5	5	3	3	3	7.3	10.0	25.0	33.3	1	1	1	1	1	1	1	1	1	1	1	1
28	89033	65.8	60.9	8.8	7.1	29.2	24.7	7.4	6.2	5	5	3	3	3	4.3	17.0	25.0	25.0	1	1	1	1	1	1	1	1	1	1	1	1
29	89035	68.7	59.2	7.9	6.1	30.1	22.9	8.4	6.7	5	5	3	3	3	3.3	8.0	25.0	33.3	1	1	1	1	1	1	1	1	1	1	1	8
30	89036	63.3	59.6	8.6	8.0	26.3	23.2	7.2	7.3	7	7	3	3	3	6.0	7.0	25.0	25.0	1	1	1	1	1	1	1	1	1	1	1	8
31	89038	72.7	63.1	9.4	6.6	25.2	21.8	8.2	7.0	5	5	3	3	3	0.0	3.3	33.3	25.0	1	1	1	1	1	1	1	1	1	1	1	8
32	89039	69.8	54.1	8.2	5.3	28.9	22.3	8.3	5.7	5	3	3	3	3	7.7	7.3	25.0	25.0	1	1	1	1	1	1	1	1	1	1	1	1
33	89044	59.8	62.4	8.7	6.1	28.2	21.8	8.3	5.7	7	5	3	3	3	12.3	14.0	41.7	25.0	1	1	1	1	1	1	1	1	1	1	1	3
34	89050	70.0	59.3	9.6	6.9	24.7	20.9	7.4	5.4	7	7	3	3	3	4.0	4.0	25.0	25.0	1	1	1	1	1	1	1	1	1	1	1	8
35	89066	65.9	53.2	8.6	6.9	25.8	20.3	6.1	5.0	7	7	3	3	3	0.0	4.0	25.0	33.3	1	1	1	1	1	1	1	1	1	1	1	8

Serial number	ICSR number	22		23		24		25		26		27		28		29		30		31		32		33	
		Leaf length (cm)		Leaf width (cm)		Panicle length (cm)		Panicle branch length (cm)		Panicle compactness		Panicle shape		Panicle exertion (cm)		Glume coverage (%)		Shattering		Threshability%		Grain form		Grain color	
		Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
36	89067	64.0	60.3	8.3	6.4	25.3	25.6	8.5	7.2	5	5	3	3	6.3	5.3	25.0	25.0	1	1	1	1	1	1	8	8
37	89074	71.9	61.9	8.2	6.1	27.3	23.3	8.9	6.8	7	7	3	3	7.0	15.3	25.0	25.0	1	1	1	1	1	1	8	8
38	90014	68.9	59.3	9.2	7.8	24.9	22.6	8.2	5.0	7	5	3	3	3.0	4.3	25.0	25.0	1	1	1	1	1	1	1	1
39	90015	66.8	58.6	9.1	7.1	22.7	17.9	6.4	4.7	5	7	3	3	9.3	14.0	25.0	25.0	1	1	1	1	1	1	8	8
40	90025	60.4	57.1	7.8	6.0	23.2	18.2	7.8	5.4	5	5	4	4	4.0	9.7	58.3	58.3	1	1	1	1	1	1	8	8
41	91001	57.0	61.3	8.1	6.8	26.3	24.4	8.3	7.2	5	7	3	3	20.0	12.7	33.3	33.3	1	1	1	1	1	1	8	8
42	91002	67.0	58.9	8.9	5.9	29.3	21.0	9.4	6.2	7	5	3	3	0.0	8.7	25.0	25.0	1	1	1	1	1	1	8	8
43	91003	69.9	62.7	8.7	6.9	25.9	26.6	6.6	6.3	5	7	3	3	16.7	11.0	25.0	25.0	1	1	1	1	1	1	8	8
44	91004	66.1	57.6	8.4	6.7	33.3	25.2	9.4	5.4	5	5	3	3	7.7	12.3	25.0	25.0	1	1	1	1	1	1	8	8
45	91021	64.3	58.3	7.9	6.1	30.4	26.7	7.7	8.0	5	5	3	3	12.0	12.7	25.0	33.3	1	1	1	1	1	1	8	8
46	91022	74.9	64.9	8.1	5.8	27.7	22.9	8.2	6.7	7	7	3	3	9.7	9.0	25.0	25.0	1	1	1	1	1	1	8	8
47	91029	56.1	52.7	9.3	7.1	26.6	22.3	9.5	5.3	5	5	3	3	5.3	5.7	25.0	25.0	1	1	1	1	1	1	8	8
48	92015	65.8	57.9	7.8	6.4	28.3	21.9	11.6	9.6	3	3	3	3	18.7	18.0	75.0	66.7	1	1	1	1	1	1	6	6
Control																									
49	CSV 4	62.9	54.7	7.9	5.7	23.8	19.3	6.8	5.4	7	7	3	3	2.0	7.3	25.0	25.0	1	1	1	1	1	1	8	8
50	RS 29	69.7	60.8	10.3	7.1	26.8	20.6	7.6	5.2	5	5	3	3	0.0	5.0	25.0	41.7	1	1	1	1	1	1	3	3
Mean		67.49	60.22	8.65	6.75	27.01	22.79	7.75	6.13	-	-	-	-	6.29	8.52	28.59	30.07	-	-	-	-	-	-	-	-
SE ±		4.03	1.82	0.51	0.33	1.12	0.94	0.51	0.51	-	-	-	-	0.90	1.11	3.30	4.72	-	-	-	-	-	-	-	-
CV (%)		10.33	5.22	10.29	8.43	7.21	7.12	11.43	14.52	-	-	-	-	24.68	22.67	20.02	27.19	-	-	-	-	-	-	-	-
CD(5%)		11.29	9.47	1.44	1.33	3.16	2.92	1.44	1.54	-	-	-	-	2.51	2.83	9.27	11.39	-	-	-	-	-	-	-	-

Trait number —→		34	35	36	37	39	40	41	42	43	44	45	46	47	48	49	50														
Serial number	ICSR number	1000-grain mass (g)	Grain shape dorsal view	Grain shape profile view	Grain germ size	Endosperm texture	Albumen color	Grain lustre	Days to seedling emergence	Leaf glossy score	Seedling vigor score	Plant aspect score	Panicle yield (t ha ⁻¹)	Grain yield (t ha ⁻¹)	Plant color	Grain pericarp thickness	Grain hardness in kg by Kaya's hardness tester														
		Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Postrainy	Postrainy														
1	32	31.74	3	3	5	3	3	5	5	7	3.0	2.3	2.7	3.0	2.0	1.7	4.5	5.0	3.6	4.0	Tan	Thick					9.0				
2	45	34.22	3	3	5	3	3	5	5	8	3.0	3.0	3.0	3.3	2.0	2.0	3.4	4.3	2.5	3.8	Tan	Thin					10.3				
3	46	34.50	3	3	5	3	3	7	6	7	3.0	2.7	3.0	2.7	2.3	1.3	2.3	4.5	1.6	3.6	Tan	Thick					8.0				
4	54	35.13	3	3	5	5	3	5	5	7	3.0	2.7	2.0	2.7	2.3	2.0	3.1	4.2	2.4	3.8	Tan	Thick					10.9				
5	55	29.69	3	3	5	3	3	5	4	7	2.7	3.0	1.7	2.0	2.0	3.0	4.9	3.0	3.9	2.7	Tan	Thin					8.3				
6	59	32.88	3	3	5	3	3	1	5	8	3.0	3.3	3.0	4.0	1.7	2.0	4.2	4.4	3.2	3.9	Tan	Thin					8.8				
7	60	29.18	3	3	5	3	3	5	5	7	3.0	2.7	3.0	3.7	1.7	1.7	4.1	4.5	3.4	3.7	Tan	Thin					6.4				
8	61	35.03	3	3	5	3	3	5	5	7	3.0	2.7	2.3	2.3	2.7	2.3	4.2	3.6	3.2	2.2	Tan	Thin					7.4				
9	64	30.41	3	3	5	3	3	5	6	7	3.3	2.7	2.3	3.0	2.0	2.0	4.7	4.6	3.7	3.8	Tan	Thin					10.1				
10	69	35.95	3	3	5	3	3	5	5	7	3.3	2.7	2.7	3.3	2.0	2.3	5.2	3.5	4.1	2.9	Tan	Thin					8.4				
11	79	29.42	3	3	5	3	3	7	5	7	3.3	2.3	1.7	2.3	2.0	2.0	3.2	3.5	2.6	2.0	Tan	Thin					10.4				
12	80	35.98	2	2	5	3	3	7	5	7	3.0	2.3	2.3	2.3	3.0	2.3	4.6	4.9	3.5	3.7	Tan	Thick					12.0				
13	81	31.84	3	3	5	3	3	5	6	8	3.0	3.0	3.3	4.0	2.7	1.7	3.3	4.6	2.5	3.8	Tan	Thin					9.4				
14	88	31.53	3	3	5	3	3	5	5	7	3.3	3.0	3.0	3.0	2.7	1.0	2.7	5.7	2.0	4.0	Tan	Thin					9.5				
15	94	34.82	3	3	5	5	3	1	6	8	2.7	3.0	3.3	4.7	2.3	2.3	3.7	2.7	2.8	2.6	Tan	Thin					9.6				
16	97	43.16	3	3	5	5	3	1	5	7	3.3	3.7	2.7	2.7	1.7	2.3	3.9	3.7	3.0	3.1	Tan	Thin					7.8				
17	105	30.25	3	3	5	5	3	5	5	7	4.0	3.0	3.0	2.0	2.3	1.7	4.5	4.0	3.7	3.4	Tan	Thin					7.8				
18	113	30.13	2	2	5	3	3	5	6	7	3.0	3.0	3.3	3.7	1.3	2.0	4.6	3.6	3.5	2.8	Tan	Thick					15.1				
19	121	35.06	3	3	5	5	3	7	5	7	3.3	3.0	3.0	3.0	1.7	2.0	3.8	3.6	3.0	2.8	Tan	Thin					7.5				
20	124	35.15	3	3	5	3	3	5	5	8	3.0	3.0	2.3	3.7	2.0	2.0	3.7	4.6	2.7	4.0	Tan	Thin					9.4				
21	137	28.45	2	2	5	3	3	7	5	7	2.7	2.3	2.3	2.3	2.3	2.0	4.2	5.1	3.5	4.2	Tan	Thick					9.8				
22	138	34.25	2	2	5	3	3	7	6	7	3.0	2.7	3.0	2.3	1.7	2.0	4.1	3.8	3.2	3.1	Tan	Thin					8.3				
23	142	33.23	3	3	5	5	3	5	6	7	2.3	2.7	3.7	3.0	3.0	2.3	4.6	4.2	3.8	3.5	Tan	Thin					10.0				
24	148	30.50	3	3	5	3	3	1	6	8	3.0	-	4.3	5.0	2.7	1.3	2.7	2.1	2.0	1.6	Tan	Thin					8.8				
25	151	29.20	3	3	5	3	3	7	6	8	2.7	2.7	3.0	3.3	1.7	2.0	4.8	4.6	4.4	3.1	Tan	Thin					8.7				
26	89007	32.10	3	3	5	3	3	1	5	7	2.3	2.3	2.0	3.0	2.3	2.0	4.2	4.6	3.4	3.8	Tan	Thin					8.0				
27	89029	32.63	3	3	5	3	3	7	4	7	3.3	3.3	1.7	2.0	1.7	2.0	5.7	4.4	4.7	3.7	Tan	Thick					7.0				
28	89033	25.61	3	3	5	3	3	7	4	7	3.0	2.3	1.3	1.3	1.3	2.3	4.0	4.6	3.2	3.5	Tan	Thin					7.6				
29	89035	33.49	3	3	5	3	3	1	5	7	2.7	2.3	2.3	2.3	2.3	2.0	4.3	3.7	3.4	3.1	Tan	Thin					12.5				
30	89036	39.78	3	3	5	3	3	5	6	8	2.7	3.0	3.0	4.3	2.7	2.0	3.5	3.1	2.7	3.3	Tan	Thin					11.8				
31	89038	29.71	3	3	5	3	3	1	6	8	2.7	3.0	3.0	4.0	2.3	2.3	4.3	3.6	3.4	3.1	Tan	Thin					8.0				
32	89039	30.27	2	2	5	3	3	7	5	7	2.7	2.7	2.3	2.0	3.0	2.3	3.9	3.5	3.2	2.8	Tan	Thin					9.0				
33	89044	28.09	3	3	5	3	3	7	4	7	3.3	2.3	2.7	3.0	2.3	2.3	3.6	4.0	3.0	3.5	Tan	Thick					9.0				
34	89050	31.07	3	3	5	3	3	5	5	7	2.7	3.0	2.7	2.3	2.0	1.7	4.4	4.3	3.5	3.7	Tan	Thin					8.8				
35	89066	27.48	3	3	5	3	3	5	6	8	2.0	1.7	3.3	3.3	2.0	2.3	2.5	3.4	1.7	2.7	Tan	Thin					9.0				

Trait number →		34	35	36	37	39	40	41	42	43		44		45		46		47		48	49	50	
Serial number	ICSR number	1000-grain mass (g)	Grain shape dorsal view	Grain shape profile view	Grain germ size	Endosperm texture	Albumen color	Grain lustre	Days to seedling emergence		Leaf glossy score		Seedling vigor score		Plant aspect score		Panicle yield (t ha ⁻¹)		Grain yield (t ha ⁻¹)		Grain pericarp thickness		Grain hardness in kg by Kaya's hardness tester
		Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Postrainy	Postrainy	Postrainy	
36	89067	37.26	3	3	5	3	3	5	6	7	3.0	3.3	3.0	3.3	2.3	2.0	4.8	4.9	3.5	3.9	Tan	Thin	7.8
37	89074	34.55	3	3	5	5	3	5	6	8	2.7	3.0	4.0	4.0	2.3	2.0	3.8	4.7	2.9	3.6	Tan	Thin	7.5
38	90014	24.78	2	2	5	3	3	7	4	7	3.0	2.3	2.7	2.7	2.0	1.7	4.0	4.6	3.0	3.6	Tan	Thin	11.2
39	90015	33.32	3	3	5	5	3	5	6	7	3.0	3.0	3.0	3.0	3.0	2.0	3.4	4.3	2.6	3.7	Tan	Thin	10.4
40	90025	33.11	2	2	5	3	3	7	6	8	1.0	1.3	3.0	3.7	3.0	3.0	3.6	2.4	2.8	1.9	Tan	Thin	8.2
41	91001	24.55	3	3	5	3	3	1	6	7	2.7	3.0	3.0	2.3	2.3	3.0	4.1	1.6	3.2	0.8	-	-	-
42	91002	37.65	3	3	7	5	3	1	6	7	2.7	2.3	2.7	2.3	2.0	2.3	3.7	3.8	2.9	1.9	-	-	-
43	91003	28.18	3	3	5	3	3	5	6	8	2.7	3.3	3.7	3.7	2.7	1.0	3.9	4.1	3.0	3.2	-	-	-
44	91004	27.78	3	3	5	3	3	7	5	7	3.7	3.0	2.0	1.7	2.7	2.7	3.4	3.6	2.6	3.1	-	-	-
45	91021	33.21	3	3	5	3	3	1	6	8	3.0	2.3	3.0	2.3	2.3	2.0	4.5	4.4	3.7	3.6	-	-	-
46	91022	28.24	3	3	5	3	3	7	6	7	3.0	3.0	3.0	3.3	2.3	1.7	3.4	4.7	2.6	3.9	-	-	-
47	91029	27.74	3	3	5	3	3	5	5	7	3.0	2.7	3.0	2.3	2.7	2.0	4.6	4.3	3.8	3.4	-	-	-
48	92015	25.77	2	2	5	7	4	1	6	8	2.0	3.7	3.0	2.7	3.0	2.7	3.7	3.3	3.0	3.1	-	-	-
Control																							
49	CSV 4	31.85	3	3	5	5	3	5	5	7	2.0	2.3	2.0	1.3	2.0	2.7	3.6	2.1	2.8	1.5	-	-	-
50	RS 29	29.49	3	3	5	3	3	7	4	6	2.7	2.0	1.3	1.3	1.7	2.0	4.8	5.5	3.6	4.5	-	-	-
Mean		31.77	-	-	-	-	-	-	5.30	7.30	2.88	2.72	2.73	2.89	2.25	2.07	3.95	3.99	3.09	3.21	-	-	-
SE ±		0.90	-	-	-	-	-	-	0.28	0.23	0.29	0.35	0.27	0.41	0.30	0.27	0.44	0.30	0.38	0.31	-	-	-
CV (%)		4.93	-	-	-	-	-	-	9.11	5.44	17.62	22.30	17.01	24.67	23.22	22.36	19.33	13.14	21.34	16.80	-	-	-
CD (5%)		2.54	-	-	-	-	-	-	0.78	0.71	0.82	0.91	0.75	0.99	0.85	0.81	1.24	1.23	1.07	1.17	-	-	-

Annexure 1-13. Characteristics of high yielding (medium maturity) sorghum R-lines evaluated during the rainy and postrainy seasons, 2005 at ICRISAT-Patancheru.

Trait number →		1		2		3		4		5		6		7		8		9		10	
Serial number	ICSR number	Coleoptile color		Fifth leaf sheath color		Leaf midrib color		Days to 50% flowering		Plant height (m) at flowering		Flag leaf: Extension of discoloration of mid rib		Flag leaf: intensity of green coloration of midrib compared to the blade		Flag leaf: yellow coloration of mid rib		Glume hair color		Lemma: arista formation	
		Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
1	8	1	1	1	1	3	2	79	91	1.1	1.0	5	1	-	2	1	1	1	1	1	1
2	21	1	1	1	1	2	2	76	91	1.2	0.9	1	1	2	2	1	1	1	1	1	1
3	22	1	1	1	1	2	2	77	89	1.6	1.0	1	1	2	2	1	1	1	1	1	1
4	25	1	1	1	1	2	2	65	79	0.9	0.7	3	1	-	2	1	1	1	1	1	1
5	27	2	2	3	3	2	2	75	87	1.2	0.8	1	1	2	2	1	1	1	1	1	1
6	47	2	2	3	3	2	2	79	79	1.7	1.0	1	5	2	-	1	1	1	1	1	1
7	48	1	1	1	1	2	2	81	76	1.5	0.9	1	5	2	-	1	1	1	1	1	1
8	50	1	1	1	1	2	2	82	78	1.5	0.9	7	7	2	-	1	1	1	1	1	1
9	58	1	1	1	1	2	2	74	85	1.3	1.0	1	1	-	2	1	1	1	1	1	1
10	74	2	2	3	3	2	2	78	82	1.2	0.9	1	1	2	2	1	1	1	1	1	1
11	75	2	2	3	3	2	2	74	87	1.0	0.8	1	1	2	2	1	1	1	1	1	1
12	78	2	2	3	3	2	2	77	88	1.3	0.9	1	1	2	2	1	1	1	1	1	1
13	83	2	2	3	3	2	2	66	85	1.2	0.9	1	1	2	2	1	1	1	1	1	1
14	84	2	2	3	3	2	2	81	89	1.6	1.0	5	1	2	2	1	1	1	1	1	1
15	91	1	1	3	1	2	2	81	97	1.2	0.9	1	1	2	2	1	1	1	1	1	1
16	92	2	2	3	3	2	1	68	75	1.4	1.0	1	1	2	2	1	1	1	1	1	1
17	93	1	1	1	1	3	3	74	82	1.6	1.1	7	7	-	-	1	1	1	1	1	1
18	98	1	1	1	1	2	2	76	83	1.0	0.8	1	1	2	2	1	1	1	1	1	1
19	100	2	2	3	3	2	2	76	81	1.6	1.0	1	1	2	2	1	1	1	1	1	1
20	102	1	1	1	1	2	2	75	77	1.4	1.0	1	1	-	-	1	1	1	1	1	1
21	115	2	2	3	3	2	2	71	82	1.0	0.8	1	1	2	-	1	1	1	1	1	1
22	117	2	2	3	3	2	2	75	83	1.4	1.0	1	5	2	2	1	1	1	1	1	1
23	118	1	1	3	1	2	2	82	87	1.4	1.2	1	1	2	2	1	1	1	1	1	1
24	119	1	1	1	1	3	2	76	80	1.6	1.0	7	7	-	-	1	1	1	1	1	1
25	123	2	1	3	1	2	2	75	82	1.1	0.8	1	5	2	2	1	1	1	1	1	1
26	127	1	1	1	1	2	2	74	85	1.4	1.1	5	5	2	-	1	1	1	1	1	1
27	129	2	2	3	3	2	2	73	82	1.2	0.8	1	1	2	2	1	1	1	1	1	1
28	131	1	1	1	1	2	2	81	81	1.6	1.0	1	1	2	2	1	1	1	1	1	1
29	133	1	1	1	1	2	2	74	85	1.3	0.9	1	1	2	2	1	1	1	1	1	1
30	136	1	1	1	1	2	2	74	86	1.5	1.1	1	1	2	2	1	1	1	1	1	1
31	141	1	1	1	1	2	2	74	91	1.3	1.0	1	1	2	2	1	1	1	1	1	1
32	145	2	2	3	3	2	2	76	70	1.7	1.0	1	1	2	2	1	1	1	1	1	1
33	146	1	1	1	1	2	2	79	87	1.3	0.9	5	5	2	2	1	1	1	1	1	1
34	147	2	2	3	3	2	2	70	79	2.7	1.7	1	1	2	2	1	1	1	1	9	9

Serial number	Trait number →	1		2		3		4		5		6		7		8		9		10	
		Coleoptile color		Fifth leaf sheath color		Leaf midrib color		Days to 50% flowering		Plant height (m) at flowering		Flag leaf: Extension of discoloration of mid rib		Flag leaf: intensity of green coloration of midrib compared to the blade		Flag leaf: yellow coloration of mid rib		Glume hair color		Lemma: arista formation	
		Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
35	154	2	1	3	1	3	3	68	78	2.1	1.5	1	5	2	-	1	1	1	1	1	1
36	155	2	2	3	3	2	2	67	80	2.0	1.5	3	5	-	-	1	1	1	1	1	1
37	160	1	1	1	1	2	2	74	76	1.6	1.0	1	5	2	-	1	1	1	1	1	1
38	166	2	2	3	3	2	2	79	92	1.6	1.0	1	1	2	2	1	1	1	1	1	1
39	171	2	2	3	3	2	2	79	91	1.5	1.0	1	1	2	2	1	1	1	1	1	1
40	179	2	1	3	1	2	2	80	86	2.0	1.3	1	1	2	2	1	1	1	1	1	1
41	181	1	1	1	1	2	2	81	88	2.1	1.2	1	1	2	2	1	1	1	1	1	1
42	186	1	1	1	1	2	2	75	84	2.5	1.6	1	1	2	2	1	1	1	1	1	3
43	89003	1	1	1	1	2	2	77	81	1.2	0.9	7	5	-	-	1	1	1	1	1	1
44	89011	2	2	3	1	2	3	66	70	0.9	0.7	7	7	2	-	1	1	1	1	1	1
45	89021	1	1	1	1	2	2	77	82	1.3	1.0	1	1	2	2	1	1	1	1	1	1
46	89023	1	1	1	1	3	2	76	76	1.3	0.9	1	1	-	2	1	1	1	1	1	1
47	89046	1	1	1	1	2	3	72	75	1.2	1.0	7	7	2	-	1	1	1	1	1	1
48	89047	2	2	3	3	2	2	70	84	1.3	1.0	1	5	2	-	1	1	1	1	1	1
49	89048	1	1	1	1	2	2	67	79	1.5	1.0	1	5	2	-	1	1	1	1	1	1
50	89049	1	1	1	1	2	2	71	80	2.2	1.5	5	5	-	-	1	1	1	1	1	1
51	89051	1	1	1	1	2	2	71	81	1.7	1.1	1	5	2	-	1	1	1	1	1	1
52	89054	1	1	1	1	2	2	71	83	2.0	1.6	1	1	2	2	1	1	1	1	1	1
53	89057	2	2	3	3	3	3	73	83	1.8	1.2	7	7	-	-	1	1	1	1	1	1
54	89061	2	2	3	3	2	2	77	84	1.3	1.0	1	5	2	-	1	1	1	1	1	1
55	89069	1	1	1	1	3	3	77	87	1.3	0.9	7	7	-	-	1	1	1	1	1	1
56	89073	1	1	3	1	2	2	69	79	1.2	0.8	1	1	2	2	1	1	1	1	1	1
57	90001	1	1	3	1	2	2	77	89	1.3	1.0	1	1	2	2	1	1	1	1	1	1
58	90005	1	1	1	1	2	2	77	88	1.1	0.9	1	1	2	2	1	1	1	1	1	1
59	90008	1	1	1	1	2	2	76	86	1.4	1.1	1	1	2	2	1	1	1	1	1	1
60	90009	2	2	3	3	2	2	70	74	1.5	1.0	1	5	2	-	1	1	1	1	1	1
61	90010	1	1	1	1	3	3	76	86	1.8	1.1	7	7	-	-	1	1	1	1	1	1
62	90011	2	1	3	1	3	3	73	85	1.9	1.2	7	7	-	-	1	1	1	1	1	1
63	90012	2	2	3	3	3	3	76	83	1.7	1.1	7	7	-	-	1	1	1	1	1	1
64	90016	1	1	1	1	2	2	80	80	2.0	1.1	1	1	-	2	1	1	1	1	1	1
65	90020	2	2	3	3	2	2	72	76	2.5	1.7	1	5	2	-	1	1	1	1	1	1
66	90021	1	1	1	1	2	2	73	79	1.9	1.2	1	5	2	-	1	1	1	1	1	1
67	90022	2	2	3	3	2	2	73	80	2.4	1.5	1	1	2	2	1	1	1	1	5	1
68	90023	1	1	3	1	2	2	68	77	1.3	0.8	1	1	2	2	1	1	1	1	1	1
69	90024	2	2	3	3	2	2	66	75	1.0	0.7	1	1	2	2	1	1	1	1	1	1
70	90026	1	1	1	1	2	2	73	83	1.2	0.8	1	1	2	2	1	1	1	1	1	1

Serial number	Trait number → ICSR number	1		2		3		4		5		6		7		8		9		10	
		Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
		Coleoptile color		Fifth leaf sheath color		Leaf midrib color		Days to 50% flowering		Plant height (m) at flowering		Flag leaf: Extension of discoloration of mid rib		Flag leaf: intensity of green coloration of midrib compared to the blade		Flag leaf: yellow coloration of mid rib		Glume hair color		Lemma: arista formation	
71	90028	2	1	3	1	2	2	78	85	1.4	1.0	1	1	2	2	1	1	1	1	1	1
72	91005	2	2	3	3	2	2	69	90	1.6	1.0	7	7	-	-	1	1	1	1	1	1
73	91007	2	2	3	3	2	2	74	76	1.1	0.9	1	7	2	-	1	1	1	1	5	1
74	91008	1	1	1	1	3	2	73	75	1.7	1.1	7	7	-	-	1	1	1	1	1	1
75	91009	1	1	1	1	2	2	72	83	0.9	0.7	1	1	2	2	1	1	1	1	1	1
76	91010	1	1	1	1	2	2	78	86	1.6	1.0	5	5	-	-	1	1	1	1	1	1
77	91013	2	2	3	3	2	2	75	95	1.2	0.8	5	1	-	2	1	1	1	1	1	1
78	91018	2	2	3	3	2	1	76	79	1.7	1.1	1	7	2	-	1	1	1	1	3	3
79	91019	2	2	3	3	2	2	75	92	1.3	1.0	5	5	-	-	1	1	1	1	1	1
80	91020	1	1	1	1	2	2	81	84	1.4	1.0	1	5	2	-	1	1	1	1	1	1
81	91023	2	2	3	3	2	2	70	76	1.0	0.8	1	1	2	2	1	1	1	1	1	1
82	91025	1	1	1	1	2	2	80	96	1.4	1.0	1	1	2	2	1	1	1	1	1	1
83	91026	1	1	1	1	3	3	74	88	2.3	1.7	7	7	-	-	1	1	1	1	1	1
84	91028	1	1	1	1	2	2	73	79	2.2	1.4	1	1	2	2	1	1	1	1	1	1
85	91030	2	2	3	3	2	2	74	83	1.3	0.9	1	5	2	-	1	1	1	1	1	1
86	91031	1	1	1	1	2	2	73	87	1.9	1.3	1	1	2	2	1	1	1	1	1	1
87	91032	2	2	3	3	2	2	82	84	3.0	2.0	1	1	2	2	1	1	1	1	9	9
88	91033	1	1	1	1	2	2	72	86	1.2	1.0	1	1	2	2	1	1	1	1	1	1
89	92005	2	2	3	3	2	2	75	96	1.7	1.1	1	1	2	2	1	1	1	1	5	3
90	92007	1	1	1	1	3	3	76	77	1.6	1.1	7	5	-	-	1	1	1	1	1	1
91	92008	2	1	1	1	2	2	73	83	1.3	0.9	1	1	2	2	1	1	1	1	1	1
92	92009	1	1	1	1	3	2	73	80	1.2	0.8	7	7	-	-	1	1	1	1	1	1
93	92010	1	1	1	1	2	2	73	74	1.6	1.0	1	5	2	-	1	1	1	1	1	1
94	92011	1	1	1	1	3	2	70	76	1.5	1.0	3	7	2	-	1	1	1	1	1	1
95	92012	2	2	3	3	2	2	69	78	1.2	0.9	1	5	2	-	1	1	1	1	1	1
96	92014	2	2	3	3	1	1	68	79	1.8	1.0	1	7	2	-	9	5	1	1	1	1
97	92016	2	2	3	3	2	2	77	79	1.8	1.2	7	7	2	-	1	1	1	1	1	1
98	92022	2	2	3	3	2	2	71	72	2.0	1.1	1	1	2	2	1	1	1	1	1	1
99	92023	2	2	3	1	2	2	72	77	2.2	1.5	1	1	2	2	1	1	1	1	9	5

Trait number →		1		2		3		4		5		6		7		8		9		10	
Serial number	ICSR number	Coleoptile color		Fifth leaf sheath color		Leaf midrib color		Days to 50% flowering		Plant height (m) at flowering		Flag leaf: Extension of midrib		Flag leaf: intensity of green coloration of midrib compared to the blade		Flag leaf: yellow coloration of midrib		Glume hair color		Lemma: arista formation	
		Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
100	92026	2	2	3	3	2	2	75	81	2.7	1.5	1	1	2	2	1	1	1	1	9	9
101	92027	2	2	3	3	2	2	74	85	2.6	1.8	1	1	2	2	1	1	1	1	9	9
Control																					
102	CSV 4	2	1	3	1	2	2	69	74	1.0	0.8	1	5	2	-	1	1	1	1	1	1
103	RS 29	2	1	3	1	2	2	74	85	1.8	1.2	1	1	2	2	1	1	1	1	1	1
Mean		-	-	-	-	-	-	74	83	1.54	1.06	-	-	-	-	-	-	-	-	-	-
SE ±		-	-	-	-	-	-	1.53	1.03	0.05	0.03	-	-	-	-	-	-	-	-	-	-
CV (%)		-	-	-	-	-	-	3.56	2.16	5.73	5.60	-	-	-	-	-	-	-	-	-	-
CD (5%)		-	-	-	-	-	-	4.26	3.68	0.14	0.12	-	-	-	-	-	-	-	-	-	-

Trait No. 1-41 : Traits stipulated in the DUS-test guidelines (Trait no 38 was not recorded in the current trials).

Trait No. 42-47 : Ancillary traits recorded in the current trials.

Trait No. 48-50 : Monitored traits recorded in various trials conducted earlier at ICRISAT.

Serial number	Trait number →	11		12		13		14		15		16		17		18		19		20		21	
		Stigma: anthocyanin coloration		Stigma: yellow coloration		Stigma length		Pedicellate flower length		Length of anther		Dried anther color		Glume color		Plant height (m) at maturity		Stem thickness (mm)		Juicy score		Brix reading (%)	
	ICSR number	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
1	8	1	1	1	5	5	5	5	5	5	5	6	6	2	6	1.3	1.3	19.6	18.5	1	1	17.7	19.7
2	21	1	1	1	1	3	3	3	3	5	5	6	4	5	2	1.4	1.0	18.8	20.3	1	1	17.0	16.7
3	22	1	1	5	5	5	5	5	5	5	5	4	4	4	4	1.8	1.3	20.9	19.2	1	1	15.3	15.0
4	25	1	1	7	1	7	5	5	5	3	5	6	6	2	5	1.2	1.0	18.2	18.5	1	1	10.7	14.7
5	27	1	1	1	1	5	5	5	3	3	3	6	6	1	7	1.5	1.1	19.9	18.9	1	1	14.0	16.7
6	47	1	1	1	1	3	3	3	3	5	5	6	4	4	4	1.9	1.1	18.3	18.2	1	1	17.3	17.3
7	48	1	1	1	1	3	3	3	3	5	5	4	4	4	5	1.7	1.1	20.4	18.3	1	1	19.3	20.0
8	50	1	1	5	1	5	5	5	5	5	5	4	4	5	5	1.7	1.1	20.4	18.8	1	1	16.0	18.3
9	58	1	1	1	1	5	5	5	3	5	5	4	6	5	5	1.5	1.2	19.1	19.0	1	1	16.3	18.7
10	74	1	1	1	1	5	5	5	5	3	5	4	4	5	4	1.4	1.2	20.1	16.5	1	1	17.7	18.7
11	75	1	1	5	1	9	5	5	5	5	5	4	4	2	2	1.2	1.0	16.7	16.9	1	1	13.7	14.7
12	78	1	1	5	5	3	3	3	3	5	5	7	4	5	4	1.5	1.1	19.5	19.3	1	1	14.3	15.3
13	83	1	1	5	1	3	5	5	5	5	5	4	4	7	5	1.5	1.2	17.1	19.3	2	1	5.3	12.3
14	84	1	1	1	1	5	5	5	3	3	5	4	4	4	5	1.9	1.4	18.5	17.5	1	1	13.7	15.3
15	91	1	1	1	1	5	3	3	3	3	5	6	6	1	1	1.4	1.1	21.9	17.4	1	1	16.3	14.3
16	92	1	1	5	1	3	3	3	3	5	5	6	6	5	4	1.7	1.3	17.9	17.3	1	1	14.0	17.0
17	93	1	1	5	1	5	5	5	3	5	5	4	6	5	5	1.9	1.3	17.6	20.3	1	1	15.3	19.7
18	98	1	1	1	1	3	3	3	3	5	5	4	4	1	2	1.2	1.0	18.5	19.5	1	1	13.3	19.7
19	100	1	1	1	1	5	3	3	3	5	5	4	4	5	5	1.9	1.4	18.8	18.9	1	1	18.0	17.7
20	102	1	1	5	1	3	3	3	3	3	5	4	4	5	5	1.7	1.2	18.3	18.1	1	1	12.3	19.3
21	115	1	1	1	1	5	3	3	3	5	5	4	4	5	3	1.4	1.2	18.1	16.7	1	1	9.0	14.3
22	117	1	1	1	1	3	5	5	5	5	5	7	6	5	4	1.6	1.2	18.9	16.9	1	1	16.3	20.0
23	118	1	1	1	1	5	3	3	3	5	5	4	6	5	4	1.6	1.5	17.3	18.3	1	1	14.7	13.7
24	119	1	1	1	1	5	3	3	3	5	5	4	4	5	5	1.9	1.3	18.6	20.5	1	1	18.0	20.0
25	123	1	1	1	1	5	3	3	3	5	5	7	6	4	4	1.5	1.2	20.7	21.1	1	1	13.0	17.0
26	127	1	1	7	5	3	3	3	3	5	5	4	4	5	5	1.8	1.4	19.7	17.9	1	1	11.0	18.7
27	129	1	1	1	1	3	3	3	3	5	5	4	4	7	5	1.5	1.1	18.2	19.1	1	1	15.3	18.0
28	131	1	1	5	1	3	3	3	3	5	5	4	6	4	4	2.0	1.4	21.3	20.8	1	1	14.3	15.7
29	133	1	1	1	1	5	3	3	3	5	5	6	6	5	7	1.5	1.2	19.4	18.6	1	1	19.7	20.7
30	136	1	1	7	7	5	5	5	5	5	5	4	4	6	6	1.8	1.3	19.5	20.5	1	1	16.0	18.7
31	141	1	1	1	1	3	3	3	3	5	5	6	6	5	5	1.5	1.2	18.8	17.3	1	2	12.7	11.7
32	145	1	1	1	1	3	5	5	5	5	5	4	6	4	2	1.9	1.4	21.3	15.7	1	1	7.7	12.7
33	146	1	1	1	1	3	5	5	3	3	5	4	4	5	4	1.5	1.2	18.4	19.1	1	1	14.7	11.7
34	147	1	1	5	1	3	5	7	7	5	5	4	7	7	5	3.0	1.8	19.0	14.8	1	2	14.0	17.3

Serial number	Trait number →	11		12		13		14		15		16		17		18		19		20		21	
		Stigma: anthocyanin coloration		Stigma: yellow coloration		Stigma length		Pedicellate flower length		Length of anther		Dried anther color		Glume color		Plant height (m) at maturity		Stem thickness (mm)		Juicy score		Brix reading (%)	
	ICSR number	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
35	154	1	1	5	5	5	5	3	3	5	3	4	4	4	4	2.3	1.7	17.6	12.4	1	1	14.7	15.7
36	155	1	1	5	5	5	5	5	5	5	3	4	4	4	4	2.1	1.7	16.7	12.9	1	1	9.7	14.7
37	160	1	1	1	5	3	3	7	5	5	5	6	4	4	4	2.0	1.3	18.0	16.4	2	1	10.7	17.0
38	166	1	1	1	5	5	5	5	5	5	5	6	6	1	1	2.0	1.4	21.5	22.1	1	1	15.3	14.3
39	171	1	1	1	1	9	5	7	7	5	5	4	4	5	5	1.8	1.3	22.5	20.0	1	1	13.3	14.3
40	179	1	1	1	1	9	5	5	7	5	5	4	6	4	2	2.4	1.6	20.4	19.9	1	1	17.3	21.7
41	181	1	1	1	1	5	3	7	7	5	5	4	4	5	4	2.2	1.4	20.4	21.0	1	1	10.0	16.3
42	186	1	1	1	1	5	3	7	5	5	5	4	4	4	4	2.8	2.0	21.3	19.3	1	1	17.3	15.0
43	89003	1	1	5	5	3	3	5	5	5	5	7	4	4	4	1.6	1.3	20.2	18.8	1	1	14.0	17.3
44	89011	1	1	1	1	5	3	5	7	5	5	4	4	4	4	1.3	1.0	16.5	18.6	1	1	10.7	17.0
45	89021	1	1	5	5	3	3	5	5	5	5	4	4	5	5	1.7	1.3	18.1	18.8	1	1	12.0	19.0
46	89023	1	1	1	5	3	3	7	5	5	5	6	4	5	7	1.8	1.3	17.1	16.1	1	1	12.7	17.0
47	89046	1	1	5	5	5	3	3	3	3	3	4	4	2	3	1.4	1.2	17.2	17.5	2	2	11.7	14.3
48	89047	1	1	7	5	3	5	3	3	5	3	4	4	1	2	1.6	1.2	19.8	17.6	2	2	9.7	16.3
49	89048	1	1	5	1	5	3	7	5	5	5	4	4	4	2	1.8	1.4	16.6	17.6	1	1	10.0	18.0
50	89049	1	1	5	1	5	3	7	7	5	5	4	6	5	5	2.6	1.9	16.1	15.4	1	1	11.7	16.7
51	89051	1	1	5	1	3	3	7	5	5	5	4	4	5	5	1.8	1.3	18.6	17.5	1	1	10.0	14.7
52	89054	1	1	5	1	5	5	7	5	5	5	6	4	4	4	2.3	1.9	14.9	15.1	2	2	5.7	15.3
53	89057	1	1	1	5	3	3	5	5	5	5	4	4	4	2	2.1	1.5	16.5	17.6	1	2	12.0	19.0
54	89061	1	1	1	1	3	3	5	5	5	5	6	4	5	4	1.6	1.2	19.5	19.6	1	1	12.3	17.3
55	89069	1	1	1	5	5	3	5	5	5	5	6	4	2	4	1.6	1.2	16.7	16.7	2	2	11.0	16.7
56	89073	1	1	7	5	5	5	5	5	3	5	4	4	1	1	1.5	1.2	16.7	17.9	1	1	15.0	18.7
57	90001	1	1	1	1	3	3	5	5	5	5	4	6	5	4	1.6	1.2	18.3	17.7	1	1	14.7	14.7
58	90005	1	1	5	5	3	3	5	5	5	5	7	6	4	7	1.5	1.3	19.5	17.8	1	2	15.3	12.7
59	90008	1	1	1	1	3	5	5	5	5	5	6	4	4	4	1.8	1.4	16.6	18.8	1	1	12.0	12.3
60	90009	1	1	1	1	3	3	7	5	5	5	7	4	7	7	1.7	1.2	18.0	15.2	1	1	5.0	12.3
61	90010	1	1	1	1	3	3	5	5	5	5	4	4	5	7	2.0	1.4	21.1	18.7	1	2	12.0	16.7
62	90011	1	1	5	1	5	3	7	5	5	5	4	4	5	4	2.1	1.5	19.8	19.7	2	1	7.3	18.0
63	90012	1	1	1	1	5	3	5	7	5	5	4	4	4	7	2.0	1.4	19.5	17.7	2	1	12.0	16.0
64	90016	1	1	5	5	5	5	5	5	5	5	4	4	2	2	2.1	1.4	18.2	16.1	1	1	15.3	18.7
65	90020	1	1	1	1	5	3	7	7	5	5	4	4	4	7	2.9	2.0	18.0	16.0	1	1	18.0	19.0
66	90021	1	1	1	1	5	5	7	5	5	5	4	4	4	2	2.3	1.5	14.3	16.5	1	1	11.7	16.7
67	90022	1	1	5	1	5	5	5	5	5	5	7	4	2	7	2.7	1.6	18.0	15.9	1	1	13.0	14.7
68	90023	1	1	7	1	5	5	5	5	5	5	4	4	4	4	1.7	1.0	18.0	17.4	1	1	12.7	17.3
69	90024	1	1	7	5	5	5	5	5	5	5	4	4	5	2	1.3	1.0	15.7	18.3	1	1	15.3	18.7
70	90026	1	1	5	1	3	3	7	7	5	5	4	4	2	4	1.5	1.1	18.2	19.2	1	1	5.7	15.3

Serial number	Trait number →	11		12		13		14		15		16		17		18		19		20		21	
		Stigma: anthocyanin coloration		Stigma: yellow coloration		Stigma length		Pedicellate flower length		Length of anther		Dried anther color		Glume color		Plant height (m) at maturity		Stem thickness (mm)		Juicy score		Brix reading (%)	
	ICSR number	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
71	90028	1	1	1	1	5	3	5	5	5	5	6	4	1	4	1.7	1.3	18.2	17.5	1	1	14.0	16.0
72	91005	1	1	5	1	5	5	5	5	5	5	4	4	2	2	1.9	1.3	20.6	24.3	1	1	13.3	15.0
73	91007	1	1	1	1	5	5	7	5	5	5	4	4	2	4	1.4	1.2	19.0	17.6	1	1	12.7	15.7
74	91008	1	1	1	1	3	3	5	3	5	5	4	4	5	7	2.0	1.4	18.6	16.4	1	2	13.0	18.3
75	91009	1	1	1	1	3	3	5	3	3	5	4	4	4	4	1.2	0.9	19.2	20.4	1	1	17.0	18.7
76	91010	1	1	1	1	3	5	5	5	5	5	7	4	2	7	1.8	1.2	20.7	20.4	2	1	10.7	16.7
77	91013	1	1	1	1	3	5	5	5	5	5	4	4	1	4	1.5	1.1	22.3	21.6	1	1	10.7	13.3
78	91018	1	1	1	1	5	5	7	5	5	5	4	4	4	5	1.8	1.2	19.2	15.8	1	1	15.3	20.0
79	91019	1	1	1	1	5	3	7	5	5	5	4	4	2	2	1.7	1.3	16.0	19.4	2	2	12.3	14.0
80	91020	1	1	1	1	5	5	5	3	5	5	4	6	2	2	1.7	1.3	17.3	19.4	1	1	13.7	15.0
81	91023	1	1	5	1	3	3	5	3	5	5	4	7	1	2	1.2	1.0	15.9	15.6	1	1	11.7	17.0
82	91025	1	1	1	1	3	5	5	5	5	5	4	4	4	5	1.6	1.3	20.0	21.3	1	2	13.0	11.7
83	91026	1	1	1	1	3	3	5	5	5	5	4	4	5	7	2.5	2.1	15.5	17.4	2	2	14.7	15.3
84	91028	1	1	1	1	5	5	5	5	5	5	7	4	4	2	2.4	1.6	17.5	12.3	2	1	13.3	13.3
85	91030	1	1	1	1	5	3	3	3	3	5	4	4	4	4	1.6	1.1	16.2	18.8	1	1	17.0	16.0
86	91031	1	1	1	1	3	3	7	5	5	5	4	4	4	2	2.2	1.6	19.5	15.3	1	1	15.3	14.3
87	91032	1	1	5	1	9	9	5	7	5	5	7	4	5	4	3.1	2.1	17.9	15.4	1	1	14.0	16.0
88	91033	1	1	5	1	5	9	5	5	5	5	4	4	2	2	1.4	1.2	17.8	18.2	1	1	14.7	20.3
89	92005	1	1	1	1	5	5	5	5	5	5	4	4	5	5	2.1	1.4	21.4	18.2	1	1	8.3	12.7
90	92007	1	1	1	1	3	3	5	5	5	5	6	4	4	5	1.9	1.3	18.9	17.1	2	1	11.0	18.0
91	92008	1	1	5	1	5	3	5	5	5	5	4	4	2	4	1.8	1.3	19.5	19.4	2	1	10.7	15.7
92	92009	1	1	5	5	3	3	5	3	5	5	4	6	4	4	1.4	1.0	16.5	18.2	2	2	8.0	17.7
93	92010	1	1	5	5	3	3	7	5	5	5	6	4	4	2	1.8	1.2	17.3	16.0	2	1	8.7	13.3
94	92011	1	1	7	5	3	3	5	5	5	5	6	4	4	2	1.8	1.2	16.8	16.0	1	1	12.7	16.3
95	92012	1	1	1	5	3	3	7	5	5	5	4	4	5	5	1.6	1.2	20.6	18.9	2	1	10.3	17.7
96	92014	1	1	7	7	5	5	5	3	3	5	4	7	7	7	1.9	1.1	18.6	16.1	1	1	16.7	20.0
97	92016	1	1	1	1	3	3	5	3	5	5	6	4	5	5	2.2	1.4	18.5	18.0	1	2	12.0	16.7
98	92022	1	1	1	1	5	5	5	5	5	5	4	4	5	5	2.3	1.4	19.0	18.9	1	1	16.7	19.3
99	92023	1	1	1	1	5	5	7	7	5	5	4	4	1	2	2.1	1.7	18.0	18.7	1	2	11.7	10.3

Trait number →		11		12		13		14		15		16		17		18		19		20		21	
Serial number	ICSR number	Stigma: anthocyanin coloration		Stigma: yellow coloration		Stigma length		Pedicellate flower length		Length of anther		Dried anther color		Glume color		Plant height (m) at maturity		Stem thickness (mm)		Juicy score		Brix reading (%)	
		Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
100	92026	1	1	1	1	9	5	7	7	5	5	4	7	4	2	2.9	1.6	17.5	16.9	1	1	13.3	17.3
101	92027	1	1	5	5	9	9	7	7	5	5	4	4	5	7	2.8	1.8	17.6	17.2	1	1	20.3	20.0
Control																							
102	CSV 4	1	1	5	1	5	3	5	5	5	5	4	4	4	2	1.3	1.0	17.0	14.4	1	1	12.7	15.0
103	RS 29	1	1	5	5	3	3	5	5	3	5	4	4	4	4	2.0	1.4	15.7	14.4	1	1	16.7	15.7
Mean		-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.82	1.32	18.53	17.93	-	-	13.27	16.43
SE ±		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.07	0.04	1.05	1.00	-	-	1.64	1.37
CV (%)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.84	5.28	9.80	9.62	-	-	21.39	14.44
CD (5%)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.20	0.16	2.92	2.84	-	-	4.57	4.21

Serial number	ICSR number	22		23		24		25		26		27		28		29		30		31		32		Grain color
		Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	
1	8	77.7	71.2	8.4	5.7	26.8	25.0	7.8	5.7	7	7	3	3	0.0	4.3	41.7	25.0	1	1	1	1	1	1	8
2	21	65.4	62.2	8.3	6.2	25.7	18.9	7.1	6.0	5	5	3	3	0.0	2.3	25.0	33.3	1	1	1	1	1	1	1
3	22	70.2	59.8	8.2	6.3	25.9	25.3	7.3	6.1	7	5	3	3	0.0	6.3	25.0	25.0	1	1	1	1	1	1	8
4	25	70.6	57.6	9.0	6.3	22.4	17.6	5.2	4.2	7	7	3	3	8.0	5.3	25.0	25.0	1	1	1	1	1	1	8
5	27	75.2	62.4	9.9	7.8	25.0	21.0	6.6	5.3	5	7	3	3	10.0	11.0	25.0	25.0	1	1	1	1	1	1	8
6	47	73.4	62.4	8.3	6.8	26.7	21.1	8.0	4.3	7	5	3	3	0.0	0.0	25.0	25.0	1	1	1	1	1	1	8
7	48	71.0	70.0	8.4	6.4	24.8	20.3	6.9	5.3	7	5	3	3	3.0	4.0	25.0	25.0	1	1	1	1	1	1	8
8	50	65.0	57.9	9.3	6.2	23.3	20.1	8.1	5.0	7	5	3	3	0.0	2.7	25.0	25.0	1	1	1	1	1	1	8
9	58	66.0	59.3	8.4	6.2	24.2	22.0	7.2	5.6	5	5	3	3	4.0	5.3	25.0	25.0	1	1	1	1	1	1	8
10	74	61.3	58.1	8.2	6.3	17.4	17.9	6.0	5.3	7	7	3	3	7.3	8.7	25.0	25.0	1	1	1	1	1	1	8
11	75	62.3	52.7	8.1	6.1	22.9	20.4	6.0	5.1	5	5	3	3	0.0	5.3	41.7	33.3	1	1	1	1	1	1	1
12	78	63.9	58.0	8.1	6.3	21.1	19.7	5.8	5.1	7	5	3	3	3.0	1.7	25.0	25.0	1	1	1	1	1	1	8
13	83	64.0	57.3	8.3	6.4	26.9	21.9	6.9	6.3	7	5	3	3	1.7	4.3	25.0	25.0	1	1	1	1	1	1	8
14	84	58.7	58.1	8.4	6.7	22.0	19.4	5.7	6.2	7	7	3	3	8.0	21.3	33.3	41.7	1	1	1	1	1	1	1
15	91	70.7	62.9	8.4	6.1	20.1	19.7	5.3	5.2	7	7	3	3	2.0	5.0	25.0	25.0	1	1	1	1	1	1	8
16	92	67.3	60.7	8.7	6.9	26.4	22.0	7.1	5.2	7	5	3	3	6.3	12.7	25.0	25.0	1	1	1	1	1	1	8
17	93	65.9	57.6	8.2	5.9	24.3	20.3	7.9	5.0	5	5	3	3	7.7	5.3	25.0	25.0	1	1	1	1	1	1	8
18	98	75.8	62.0	8.7	6.2	27.2	24.3	5.8	6.8	7	7	3	3	0.0	5.7	33.3	41.7	1	1	1	1	1	1	8
19	100	68.2	54.3	9.0	6.3	29.6	25.1	7.2	5.8	5	5	3	3	4.0	14.7	41.7	41.7	1	1	1	1	1	1	1
20	102	62.3	54.4	8.4	6.5	25.1	20.7	6.6	5.7	7	5	3	3	4.3	11.3	25.0	25.0	1	1	1	1	1	1	8
21	115	67.7	55.8	8.0	5.9	29.9	26.0	6.8	6.6	7	5	3	3	13.7	19.7	25.0	25.0	1	1	1	1	1	1	8
22	117	64.6	56.3	9.4	6.6	25.4	21.6	8.3	7.2	7	5	3	3	1.0	5.3	25.0	25.0	1	1	1	1	1	1	8
23	118	59.9	56.2	8.4	6.2	25.6	21.3	6.3	4.9	7	7	3	3	1.3	12.3	25.0	25.0	1	1	1	1	1	1	1
24	119	66.7	62.8	9.3	6.9	26.6	21.7	7.7	5.6	5	5	3	3	4.3	3.3	25.0	25.0	1	1	1	1	1	1	8
25	123	77.2	67.2	8.6	6.3	29.9	27.4	7.1	5.6	5	5	3	3	8.3	12.0	33.3	41.7	1	1	1	1	1	1	1
26	127	75.1	66.2	8.6	6.9	34.8	27.6	7.3	6.2	7	5	3	3	2.7	8.0	25.0	25.0	1	1	1	1	1	1	8
27	129	74.8	65.8	8.9	8.4	22.9	22.1	6.0	5.8	5	5	3	3	5.3	8.0	25.0	25.0	1	1	1	1	1	1	8
28	131	72.4	58.4	8.4	7.1	27.7	23.4	8.0	6.6	7	5	3	3	4.0	14.0	50.0	50.0	1	1	1	1	1	1	1
29	133	66.6	61.6	8.7	6.2	28.1	25.3	6.9	6.2	5	5	3	3	3.3	7.7	25.0	25.0	1	1	1	1	1	1	8
30	136	73.1	66.8	8.7	7.3	26.4	19.6	7.3	5.9	7	7	3	3	6.7	8.3	50.0	25.0	1	1	1	1	1	1	1
31	141	73.7	56.0	8.7	6.6	24.1	20.4	6.2	5.6	7	7	3	3	7.0	8.0	25.0	25.0	1	1	1	1	1	1	8
32	145	75.4	62.2	8.2	5.7	26.2	19.4	8.2	5.6	7	5	3	3	6.7	13.0	25.0	50.0	1	1	1	1	1	1	8
33	146	66.6	64.0	8.4	7.2	22.7	22.6	5.4	5.3	7	7	3	3	6.0	7.7	25.0	25.0	1	1	1	1	1	1	8
34	147	66.3	55.0	7.8	6.4	22.1	16.0	6.5	4.6	5	7	3	3	6.0	9.3	50.0	25.0	1	1	1	1	1	1	8

Trait number →		22		23		24		25		26		27		28		29		30		31		32		33	
Serial number	ICSR number	Leaf length (cm)		Leaf width (cm)		Panicke length (cm)		Panicke branch length (cm)		Panicke compactness		Panicke shape		Panicke exertion (cm)		Glume coverage (%)		Shattering		Threshability%		Grain form		Grain color	
		Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
35	154	70.6	57.9	8.3	5.7	21.6	15.3	8.3	4.1	7	5	3	3	0.0	8.3	25.0	25.0	1	1	1	1	1	1	1	8
36	155	71.2	55.6	8.3	6.0	24.4	17.4	6.6	3.7	7	7	3	3	2.7	5.0	25.0	25.0	1	1	1	1	1	1	1	8
37	160	70.2	58.3	8.3	6.6	31.2	22.7	8.5	5.9	5	5	3	3	6.7	5.7	25.0	25.0	1	1	1	1	1	1	1	8
38	166	71.1	66.0	9.2	7.0	31.3	25.4	9.1	7.3	7	5	3	3	7.3	13.0	50.0	50.0	1	1	1	1	1	1	1	8
39	171	76.9	64.3	10.0	6.9	26.0	21.2	6.7	5.2	7	7	3	3	12.3	13.7	50.0	25.0	1	1	1	1	1	1	1	8
40	179	75.4	56.6	8.2	5.7	28.8	22.9	7.3	6.0	5	5	3	3	12.0	13.7	50.0	50.0	1	1	1	1	1	1	1	8
41	181	67.0	65.1	8.8	6.1	24.3	22.7	7.5	5.9	5	5	3	3	6.0	2.7	50.0	50.0	1	1	1	1	1	1	1	8
42	186	71.7	57.0	8.1	5.7	19.0	18.6	5.7	5.1	7	7	3	3	11.7	14.7	41.7	41.7	1	1	1	1	1	1	1	8
43	89003	80.1	67.8	8.3	6.6	36.1	26.1	9.1	7.6	5	5	3	3	11.7	9.7	33.3	50.0	1	1	1	1	1	1	1	8
44	89011	68.7	55.1	7.7	5.1	29.1	23.9	6.1	6.0	5	7	3	3	12.0	13.3	25.0	25.0	1	1	1	1	1	1	1	8
45	89021	74.2	59.0	8.4	6.7	27.7	24.7	7.6	7.0	7	5	3	3	6.0	6.3	25.0	50.0	1	1	1	1	1	1	1	8
46	89023	72.0	57.4	8.6	5.8	32.2	23.2	8.9	6.3	7	5	3	3	17.7	16.7	25.0	25.0	1	1	1	1	1	1	1	8
47	89046	66.3	54.4	8.0	6.6	26.4	20.0	8.4	5.4	5	5	3	3	2.0	3.0	25.0	25.0	1	1	1	1	1	1	1	8
48	89047	68.3	57.2	8.6	6.0	28.6	22.6	9.7	5.3	5	5	3	3	2.3	6.7	25.0	25.0	1	1	1	1	1	1	1	8
49	89048	73.4	59.3	8.6	6.1	29.7	23.6	8.5	6.4	5	5	3	3	6.7	14.0	33.3	41.7	1	1	1	1	1	1	1	8
50	89049	68.4	56.8	8.3	5.4	24.9	20.6	7.2	5.7	5	5	3	3	13.7	19.7	25.0	25.0	1	1	1	1	1	1	1	8
51	89051	70.4	57.1	8.0	6.7	23.3	17.8	5.1	4.0	7	5	3	3	2.0	5.3	25.0	25.0	1	1	1	1	1	1	1	8
52	89054	72.9	64.4	7.4	5.4	29.6	24.7	8.1	6.2	5	5	3	3	4.0	4.3	50.0	41.7	1	1	1	1	1	1	1	8
53	89057	72.1	57.7	10.0	6.1	24.2	21.4	8.2	4.8	7	5	3	3	8.0	9.0	25.0	41.7	1	1	1	1	1	1	1	8
54	89061	71.9	64.4	8.7	6.3	26.8	23.9	8.2	6.8	7	7	3	3	0.0	3.7	25.0	25.0	1	1	1	1	1	1	1	8
55	89069	63.8	60.3	8.2	6.3	22.1	20.1	5.8	4.4	7	7	3	3	3.3	6.0	33.3	25.0	1	1	1	1	1	1	1	8
56	89073	62.8	50.7	8.0	6.0	26.0	19.2	6.8	4.9	5	5	3	3	11.7	11.0	41.7	41.7	1	1	1	1	1	1	1	8
57	90001	69.9	61.0	8.3	6.1	27.4	22.6	8.6	4.9	7	7	3	3	1.7	6.3	25.0	41.7	1	1	1	1	1	1	1	8
58	90005	77.0	67.3	8.7	6.4	35.4	29.8	9.9	8.2	5	5	3	3	9.3	7.0	41.7	41.7	1	1	1	1	1	1	1	8
59	90008	65.6	55.6	7.9	6.0	29.4	24.6	7.6	5.8	5	5	3	3	6.0	7.0	25.0	41.7	1	1	1	1	1	1	1	8
60	90009	74.0	60.1	9.4	6.8	26.1	18.7	9.7	5.0	5	5	4	4	1.3	4.3	41.7	41.7	1	1	1	1	1	1	1	8
61	90010	71.2	50.9	8.2	6.8	25.2	22.1	8.4	5.9	5	5	3	3	5.3	9.7	25.0	50.0	1	1	1	1	1	1	1	1
62	90011	69.1	59.1	9.1	6.7	27.1	26.4	8.1	7.3	5	5	3	3	4.7	3.7	25.0	50.0	1	1	1	1	1	1	1	8
63	90012	69.2	55.1	9.1	6.4	23.2	20.6	7.4	5.0	7	5	3	3	3.7	7.7	25.0	33.3	1	1	1	1	1	1	1	8
64	90016	73.0	55.4	8.3	6.6	21.3	17.3	5.7	4.2	7	7	3	3	5.0	12.7	25.0	25.0	1	1	1	1	1	1	1	8
65	90020	69.8	56.8	7.7	7.0	25.2	21.2	9.3	6.4	3	5	3	3	7.3	12.7	33.3	41.7	1	1	1	1	1	1	1	3
66	90021	60.3	53.1	8.0	6.2	19.9	17.4	8.3	5.9	7	7	3	3	19.7	21.7	25.0	25.0	1	1	1	1	1	1	1	8
67	90022	62.3	55.4	8.0	6.4	23.1	18.8	6.8	4.9	5	5	3	3	3.3	4.7	50.0	41.7	1	1	1	1	1	1	1	8
68	90023	67.1	53.3	8.0	5.7	27.2	19.4	8.0	4.9	5	5	3	3	9.0	3.7	41.7	41.7	1	1	1	1	1	1	1	8
69	90024	62.8	55.9	7.7	6.1	24.6	21.7	6.1	6.6	5	5	3	3	9.7	9.3	33.3	41.7	1	1	1	1	1	1	1	8
70	90026	64.9	55.9	7.8	6.6	31.2	25.0	8.9	6.1	3	5	3	3	9.7	8.3	50.0	50.0	1	1	1	1	1	1	1	8

Trait number →		22		23		24		25		26		27		28		29		30		31		32		33	
Serial number	ICSR number	Leaf length (cm)		Leaf width (cm)		Panicle length (cm)		Panicle branch length (cm)		Panicle compactness		Panicle shape		Panicle exertion (cm)		Glume coverage (%)		Shattering		Thresholdability%		Grain form		Grain color	
		Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
71	90028	61.8	52.4	7.9	5.6	26.8	21.2	9.7	6.6	5	5	3	3	2.3	10.0	25.0	33.3	1	1	1	1	1	1	1	8
72	91005	71.6	57.7	10.7	10.0	27.9	27.7	6.6	6.9	5	5	3	3	2.7	4.0	25.0	33.3	1	1	1	1	1	1	1	8
73	91007	73.6	70.0	8.8	6.2	27.6	22.3	8.9	5.3	5	5	3	3	4.7	8.3	50.0	33.3	1	1	1	1	1	1	1	8
74	91008	72.2	59.9	9.4	6.9	26.3	20.9	8.1	6.0	5	5	3	3	4.7	6.3	25.0	25.0	1	1	1	1	1	1	1	8
75	91009	70.6	61.6	8.9	7.2	24.0	20.7	4.8	3.7	5	7	3	3	6.0	4.7	25.0	25.0	1	1	1	1	1	1	1	8
76	91010	66.7	64.0	9.4	8.0	27.9	23.1	8.8	5.2	7	5	3	3	0.0	3.3	33.3	33.3	1	1	1	1	1	1	1	8
77	91013	69.9	62.2	9.2	7.0	28.8	24.1	9.3	7.0	7	7	3	3	10.0	11.0	41.7	25.0	1	1	1	1	1	1	1	8
78	91018	78.3	60.4	8.8	6.2	17.6	14.9	4.7	4.0	7	7	4	4	2.0	3.3	33.3	50.0	1	1	1	1	1	1	1	8
79	91019	70.8	62.1	8.3	7.0	27.1	23.8	8.4	5.9	7	5	3	3	9.3	13.0	41.7	25.0	1	1	1	1	1	1	1	8
80	91020	71.7	75.4	8.1	6.9	29.6	25.7	6.7	5.8	7	5	3	3	3.0	7.0	25.0	25.0	1	1	1	1	1	1	1	8
81	91023	59.1	53.2	8.1	6.4	23.7	18.6	5.9	5.4	5	7	3	3	3.0	2.7	33.3	25.0	1	1	1	1	1	1	1	8
82	91025	71.8	57.7	8.6	6.4	21.6	19.8	8.1	6.9	5	7	3	3	2.0	7.0	25.0	50.0	1	1	1	1	1	1	1	1
83	91026	70.7	58.3	8.7	7.2	21.4	20.1	6.2	5.2	7	7	3	3	11.7	13.0	41.7	33.3	1	1	1	1	1	1	1	1
84	91028	69.8	56.1	8.3	6.0	21.8	17.6	7.0	4.4	5	7	3	3	5.7	7.0	25.0	25.0	1	1	1	1	1	1	1	8
85	91030	59.0	55.4	8.3	6.6	25.8	21.3	7.1	5.8	7	5	3	3	2.7	3.3	33.3	25.0	1	1	1	1	1	1	1	8
86	91031	80.3	52.6	8.8	5.9	25.3	20.6	7.6	4.4	5	5	3	3	4.0	12.0	25.0	33.3	1	1	1	1	1	1	1	8
87	91032	62.9	48.3	7.7	5.4	19.4	14.4	5.7	4.2	7	7	4	4	0.0	6.3	75.0	50.0	1	1	1	1	1	1	1	1
88	91033	67.1	52.9	8.2	5.9	26.7	21.1	5.9	3.6	7	7	3	3	1.0	1.7	41.7	41.7	1	1	1	1	1	1	1	1
89	92005	75.3	63.1	9.6	6.8	35.6	25.7	11.3	8.4	5	5	3	3	5.0	5.7	58.3	41.7	1	1	1	1	1	1	1	8
90	92007	70.0	62.1	8.6	7.0	27.3	22.6	7.8	6.0	7	5	3	3	0.0	3.7	25.0	41.7	1	1	1	1	1	1	1	8
91	92008	78.0	54.8	8.6	6.4	33.7	27.7	8.9	7.3	5	5	3	3	7.0	10.3	25.0	33.3	1	1	1	1	1	1	1	8
92	92009	68.9	57.9	8.0	6.3	25.9	19.3	6.7	4.9	7	5	3	3	7.7	4.3	25.0	33.3	1	1	1	1	1	1	1	8
93	92010	70.6	57.9	9.1	6.4	26.8	20.1	7.9	5.4	7	5	3	3	3.0	5.0	25.0	41.7	1	1	1	1	1	1	1	8
94	92011	69.2	54.3	8.2	6.4	25.1	19.6	7.3	5.0	7	7	3	3	7.3	5.0	33.3	33.3	1	1	1	1	1	1	1	8
95	92012	82.6	64.6	10.2	6.8	30.6	23.0	9.8	7.0	5	5	3	3	4.0	5.7	25.0	25.0	1	1	1	1	1	1	1	8
96	92014	74.8	56.4	9.1	5.9	14.1	12.1	3.6	3.2	9	9	3	3	1.0	2.7	25.0	25.0	1	1	1	1	1	1	1	9
97	92016	73.8	62.0	9.4	7.4	27.3	22.6	7.2	5.0	5	5	3	3	6.3	6.7	25.0	33.3	1	1	1	1	1	1	1	1
98	92022	73.1	57.4	8.3	6.8	21.2	21.1	6.0	5.3	7	5	3	3	7.0	6.7	33.3	50.0	1	1	1	1	1	1	1	8
99	92023	59.8	53.4	7.9	5.3	23.9	16.2	6.3	3.6	7	7	3	3	7.3	7.0	50.0	50.0	1	1	1	1	1	1	1	8

Trait number →		22		23		24		25		26		27		28		29		30		31		32		33	
Serial number	ICSR number	Leaf length (cm)		Leaf width (cm)		Panicle length (cm)		Panicle branch length (cm)		Panicle compactness		Panicle shape		Panicle exertion (cm)		Glume coverage (%)		Shattering		Threshability%		Grain form		Grain color	
		Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
100	92026	58.7	49.4	8.0	6.6	16.0	13.6	5.7	3.6	5	7	3	3	5.3	6.0	75.0	25.0	1	1	1	1	1	1	1	8
101	92027	63.9	54.1	7.7	6.4	17.9	14.3	4.4	3.7	7	7	4	4	3.0	9.0	50.0	25.0	1	1	1	1	1	1	1	8
Control																									
102	CSV 4	67.0	54.3	8.0	5.3	24.3	19.7	5.8	4.8	7	7	3	3	4.0	5.3	25.0	25.0	1	1	1	1	1	1	1	8
103	RS 29	72.6	63.3	8.3	6.8	22.4	18.1	7.3	4.9	7	5	3	3	1.7	4.0	25.0	50.0	1	1	1	1	1	1	1	8
Mean		69.46	58.97	8.53	6.44	25.68	21.35	7.28	5.55	-	-	-	-	5.27	7.82	32.53	33.41	-	-	-	-	-	-	-	-
SE ±		3.46	2.66	0.38	0.31	1.35	0.87	0.61	0.45	-	-	-	-	0.51	0.88	4.34	4.80	-	-	-	-	-	-	-	-
CV (%)		8.63	7.80	7.66	8.44	9.11	7.05	14.40	13.91	-	-	-	-	16.77	19.45	23.08	24.89	-	-	-	-	-	-	-	-
CD (5%)		9.66	9.18	1.05	0.97	3.77	3.16	1.69	1.48	-	-	-	-	1.42	2.02	12.09	12.72	-	-	-	-	-	-	-	-

Serial number	Trait number →	ICSR number	34	35	36	37	39	40	41	42	43	44	45	46	47	48	49	50
			1000-grain mass (g)	Grain shape-dorsal view	Grain shape-profile view	Grain germ size	Endosperm texture	Albumen color	Grain lustre	Days to seedling emergence	Leaf glossy score	Seedling vigor score	Plant aspect score	Panicle yield (t ha ⁻¹)	Grain yield (t ha ⁻¹)	Plant color	Grain pericarp thickness	Grain hardness in kg by Kaya's hardness tester
			Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Postrainy
1		8	31.60	3	3	5	5	3	1	5	7	2.7	2.7	2.4	1.4	Tan	Thin	7.5
2		21	32.78	3	3	5	3	3	5	5	7	3.0	3.0	3.6	2.6	Tan	Thick	7.8
3		22	33.35	3	3	5	3	3	5	6	7	3.0	2.7	2.3	1.5	Tan	Thin	7.5
4		25	39.35	3	3	5	5	3	1	5	7	3.3	2.0	1.7	2.8	Tan	Thick	8.1
5		27	29.07	3	3	5	3	3	1	6	8	3.0	2.3	4.0	3.3	Tan	Thick	6.9
6		47	35.14	3	3	5	3	3	5	5	7	3.3	2.7	2.3	2.1	Tan	Thick	9.3
7		48	38.82	3	3	5	5	3	1	5	7	3.3	2.7	3.1	2.1	Tan	Thick	7.6
8		50	41.65	3	3	5	3	3	5	5	7	3.3	2.7	2.0	1.9	Tan	Thin	6.9
9		58	34.87	3	3	5	5	3	5	5	7	3.0	2.7	2.3	2.4	Tan	Thin	7.6
10		74	31.63	3	3	5	5	3	1	6	7	3.0	2.3	1.9	1.4	Tan	Thin	4.7
11		75	33.91	3	3	5	5	3	5	5	7	3.0	2.0	3.2	2.4	Tan	Thin	9.5
12		78	29.16	3	3	5	3	3	5	5	7	3.0	2.0	1.8	1.1	Tan	Thin	10.7
13		83	30.72	3	3	5	5	3	1	6	7	3.0	3.0	3.5	2.5	Tan	Thin	6.8
14		84	32.74	3	3	5	5	3	5	7	8	3.0	2.3	3.7	2.4	Tan	Thick	8.7
15		91	23.32	3	3	5	5	3	5	6	7	3.0	2.3	4.0	2.8	Tan	Thin	7.3
16		92	38.62	3	3	5	5	3	5	5	7	3.0	3.7	2.7	2.0	Tan	Thin	7.8
17		93	35.31	3	3	5	5	3	5	5	7	2.7	2.3	2.3	1.9	Tan	Thin	7.9
18		98	26.72	3	3	5	3	3	1	5	7	2.7	2.0	3.6	2.6	Tan	Thin	7.1
19		100	31.10	3	3	5	3	3	5	4	7	2.3	2.0	2.9	2.1	Tan	Thick	7.7
20		102	28.95	3	3	5	3	3	5	4	7	3.3	2.3	3.8	2.6	Tan	Thick	14.1
21		115	30.64	3	3	5	3	3	1	6	7	3.0	2.7	4.1	3.2	Tan	Thin	8.6
22		117	39.87	3	3	5	3	3	5	5	7	2.7	2.0	3.7	2.9	Tan	Thin	8.2
23		118	26.85	3	3	5	3	3	5	5	7	2.7	2.3	3.1	2.1	Tan	Thick	8.8
24		119	37.05	3	3	5	3	3	5	5	7	3.7	2.7	2.0	2.1	Tan	Thin	14.8
25		123	35.53	2	2	5	3	3	5	5	7	3.0	2.3	3.8	2.8	Tan	Thin	7.9
26		127	30.06	3	3	5	3	3	5	5	7	3.0	3.0	4.5	3.3	Tan	Thin	8.2
27		129	34.64	3	3	5	3	3	5	5	7	3.0	2.7	3.2	2.3	Tan	Thin	14.4
28		131	35.58	3	3	5	3	3	7	5	7	3.0	2.3	2.9	1.9	Tan	Thin	7.6
29		133	32.72	3	3	5	3	3	5	5	7	3.3	2.7	3.9	3.0	Tan	Thin	16.4
30		136	38.00	3	3	7	3	3	5	4	7	2.7	2.7	3.0	2.0	Tan	Thin	11.8
31		141	32.20	3	3	5	5	3	1	6	7	3.0	3.0	3.1	2.2	Tan	Thick	13.1
32		145	30.17	3	3	5	5	3	1	5	7	3.0	2.3	3.4	2.6	Tan	Thick	8.4
33		146	29.32	3	3	5	3	3	1	6	7	2.7	2.3	3.6	2.7	Tan	Thin	8.6
34		147	39.03	3	3	5	5	3	5	5	7	1.7	2.3	3.5	2.5	Tan	Thin	8

Serial number	ICSR number	34	35	36	37	39	40	41	42	43		44		45		46		47		48	49	50
		1000-grain mass (g)	Grain shape-dorsal view	Grain shape-profile view	Grain germ size	Endosperm texture	Albumen color	Grain lustre	Days to seedling emergence	Leaf glossy score		Seedling vigor score		Plant aspect score		Panicle yield (t ha ⁻¹)		Grain yield (t ha ⁻¹)		Plant color	Grain pericarp thickness	Grain hardness in kg by Kiy's hardness tester
		Post rainy	Post rainy	Post rainy	Post rainy	Post rainy	Post rainy	Post rainy	Post rainy	Rainy	Post rainy	Rainy	Post rainy	Rainy	Post rainy	Rainy	Post rainy	Rainy	Post rainy	Post rainy	Post rainy	Post rainy
35	154	25.97	2	2	5	3	3	5	5	7	3.0	2.7	3.0	3.0	2.3	4.8	3.8	3.5	3.1	Tan	Thin	9
36	155	27.71	2	2	5	3	3	5	6	7	3.0	2.7	3.0	2.3	2.0	3.8	4.5	3.0	2.4	Tan	Thin	11.2
37	160	29.97	3	3	5	3	3	7	4	6	3.0	2.3	2.0	1.0	2.3	4.5	4.3	3.2	3.3	Tan	Thin	18.1
38	166	32.78	3	3	5	3	3	5	6	7	3.0	2.3	3.0	2.3	1.3	5.0	6.9	3.7	5.7	Tan	Thick	5.5
39	171	44.10	3	3	5	5	3	1	6	7	3.0	2.3	3.0	2.7	1.7	3.8	4.2	2.5	2.8	Tan	Thin	9.4
40	179	37.32	3	3	5	5	3	5	6	7	3.0	3.0	3.0	2.7	2.0	2.0	3.0	1.3	2.3	Tan	Thin	7.2
41	181	38.77	3	3	5	3	3	5	6	7	2.7	2.7	3.0	3.3	3.0	3.0	4.0	1.8	2.5	Tan	Thin	6.7
42	186	41.50	3	3	5	5	3	5	6	7	3.0	3.0	3.0	3.0	2.0	5.5	3.3	3.8	2.4	Tan	Thin	10.9
43	89003	27.04	3	3	5	3	3	5	5	7	3.3	2.7	2.7	2.0	5.3	5.3	5.3	3.9	4.1	Tan	Thin	7
44	89011	40.70	3	3	5	5	3	5	6	7	3.0	2.7	3.0	3.0	2.3	3.4	3.2	2.6	2.3	Tan	Thick	7.6
45	89021	25.97	3	3	5	3	3	5	4	6	3.3	2.3	2.7	2.0	2.3	4.7	5.1	3.6	4.0	Tan	Thick	8.4
46	89023	27.05	3	3	5	3	3	5	4	6	3.0	2.3	2.3	1.7	2.0	3.0	3.9	2.0	3.3	Tan	Thin	8.2
47	89046	22.68	3	3	5	5	3	1	5	7	3.3	2.3	3.0	2.0	3.0	4.6	4.5	3.3	3.4	Tan	Thick	6.1
48	89047	28.65	3	3	5	3	3	5	6	7	2.7	2.3	3.0	3.0	2.0	4.5	3.7	3.5	2.1	Tan	Thin	8.7
49	89048	23.09	3	3	7	3	3	5	5	7	3.0	2.7	2.7	2.0	2.0	3.1	3.9	2.3	3.1	Tan	Thin	7.4
50	89049	28.66	3	3	5	3	3	7	6	7	3.0	3.0	3.0	3.0	2.0	3.5	3.9	2.7	3.0	Tan	Thin	8.5
51	89051	28.07	3	3	5	3	3	1	5	7	3.3	3.3	2.3	2.7	2.0	4.8	4.7	3.5	3.8	Tan	Thick	8.8
52	89054	25.01	2	2	5	5	3	5	5	7	2.3	2.3	2.3	3.0	2.3	4.5	5.3	3.2	4.0	Tan	Thin	6.6
53	89057	29.56	3	3	5	3	3	5	6	7	3.0	3.0	3.0	3.3	2.7	2.8	4.6	1.9	3.5	Tan	Thin	7.6
54	89061	32.04	3	3	5	5	3	5	5	7	3.0	2.0	3.0	3.3	1.7	2.9	5.1	2.0	4.0	Tan	Thin	5
55	89069	21.57	3	3	5	3	3	1	5	7	2.7	2.3	2.7	2.3	2.0	3.9	5.1	2.9	4.0	Tan	Thin	6.6
56	89073	26.24	3	3	5	3	3	1	5	7	1.7	1.3	3.0	3.0	2.0	3.7	3.4	2.9	2.8	Tan	Thin	9.1
57	90001	24.14	3	3	5	5	3	1	5	7	3.0	2.0	3.3	3.3	2.0	3.3	6.6	2.3	5.3	Tan	Thin	7.8
58	90005	26.24	3	3	5	3	3	5	5	7	3.0	3.3	2.3	2.0	1.7	3.8	5.6	2.7	4.3	Tan	Thin	8.6
59	90008	25.31	3	3	5	3	3	1	6	7	2.7	1.0	3.3	3.0	2.0	3.5	4.4	2.6	3.5	Tan	Thin	6.7
60	90009	26.67	3	3	5	3	3	5	5	7	2.3	2.3	2.7	3.0	2.3	4.4	5.3	3.3	4.1	Tan	Thin	6.1
61	90010	25.53	3	3	7	3	3	5	5	7	3.0	2.3	2.3	3.0	2.3	3.1	4.9	2.0	3.9	Tan	Thick	6.4
62	90011	25.14	3	3	7	3	3	5	6	8	3.0	3.0	3.7	4.0	1.7	3.9	6.7	2.8	5.0	Tan	Thin	5.7
63	90012	30.37	3	3	5	3	3	5	6	8	3.0	3.0	3.7	3.7	2.3	3.0	3.6	2.1	3.0	Tan	Thin	6.2
64	90016	33.50	2	2	5	3	3	5	5	7	3.3	3.0	2.0	2.3	2.3	2.1	5.4	1.4	4.4	Tan	Thin	8.6
65	90020	29.94	3	3	5	3	3	7	6	7	3.0	2.0	3.7	3.0	3.0	3.7	1.6	2.8	1.0	Tan	Thin	8.7
66	90021	32.90	3	3	5	5	3	5	5	7	1.7	1.3	3.0	3.0	2.7	3.3	4.1	2.4	2.1	Tan	Thin	7.9
67	90022	37.23	3	3	5	3	3	7	5	7	2.7	2.3	2.3	3.0	2.3	4.2	3.4	3.2	2.5	Tan	Thin	9.6
68	90023	32.58	3	3	5	3	3	1	5	7	2.3	2.0	2.7	2.3	3.0	3.6	3.5	2.6	2.6	Tan	Thin	8.7
69	90024	26.10	3	3	5	3	3	1	5	8	1.3	1.3	3.0	3.0	2.7	2.8	3.1	2.0	2.5	Tan	Thin	9.4
70	90026	30.15	3	3	5	3	3	5	6	7	1.7	1.3	3.0	2.7	3.0	4.1	4.7	3.0	3.7	Tan	Thin	8.5

Serial number	ICSR number	34	35	36	37	39	40	41	42	43	44	45	46	47	48	49	50
		1000-grain mass (g)	Grain shape-dorsal view	Grain shape-profile view	Grain germ size	Endosperm texture	Albumen color	Grain lustre	Days to seedling emergence	Leaf glossy score	Seedling vigor score	Plant aspect score	Panicle yield (t ha ⁻¹)	Grain yield (t ha ⁻¹)	Plant color	Grain pericarp thickness	Grain hardness in kg by Kiyô's hardness tester
		Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Rainy	Postrainy	Postrainy	Postrainy
71	90028	28.26	3	3	5	3	3	5	6	8	4.3	2.3	3.1	2.2	3.8	Thin	6.5
72	91005	40.78	3	3	5	5	3	5	6	8	3.3	2.3	3.0	1.9	4.3	-	-
73	91007	30.09	3	3	5	5	3	1	5	7	3.0	2.0	2.9	1.9	3.0	-	-
74	91008	23.98	3	3	5	3	3	1	6	7	3.3	3.0	3.6	2.5	4.5	-	-
75	91009	40.89	3	3	5	5	3	1	5	7	2.7	2.3	2.8	1.9	3.4	-	-
76	91010	31.26	3	3	5	5	3	5	5	7	3.3	2.0	4.6	3.5	4.8	-	-
77	91013	30.94	3	3	5	5	3	1	7	8	3.0	1.7	4.0	2.8	3.9	-	-
78	91018	33.15	3	3	5	5	3	5	6	7	3.0	2.0	4.1	3.1	4.4	-	-
79	91019	28.51	3	3	5	5	3	5	5	7	3.0	1.3	3.5	2.6	4.1	-	-
80	91020	31.90	3	3	5	3	3	5	5	7	1.7	1.7	3.0	2.0	5.2	-	-
81	91023	25.87	3	3	5	3	3	5	6	7	3.3	2.7	3.3	2.4	2.7	-	-
82	91025	28.19	3	3	5	3	3	5	5	7	3.0	3.0	3.5	2.4	6.3	-	-
83	91026	25.45	3	3	5	3	3	5	4	6	2.3	2.0	2.5	1.9	3.0	-	-
84	91028	31.77	2	2	5	5	3	5	5	7	3.3	2.7	2.9	2.1	2.7	-	-
85	91030	26.26	3	3	5	5	3	5	6	7	3.0	2.3	4.0	3.0	4.4	-	-
86	91031	32.36	3	3	5	5	3	5	5	7	3.3	2.0	4.7	4.2	3.6	-	-
87	91032	32.38	3	3	7	3	3	7	5	8	3.7	2.0	2.1	4.4	1.3	-	-
88	91033	31.80	3	3	5	3	3	5	5	7	2.7	2.0	3.9	3.1	2.8	-	-
89	92005	24.37	3	3	5	3	3	5	6	8	3.0	2.0	3.9	2.6	2.6	-	-
90	92007	28.99	3	3	5	5	3	7	5	7	2.7	2.0	4.1	2.8	4.0	-	-
91	92008	33.83	3	3	5	3	3	1	6	8	4.0	2.0	3.5	2.8	4.5	-	-
92	92009	24.10	2	2	5	3	3	1	4	7	2.3	2.3	3.3	2.3	2.8	-	-
93	92010	26.52	3	3	5	3	3	1	4	7	2.0	2.0	4.1	3.1	3.0	-	-
94	92011	26.25	3	3	5	3	3	5	5	7	3.0	2.3	4.5	4.8	3.4	-	-
95	92012	40.61	2	2	5	3	3	7	5	7	2.7	2.0	3.8	2.7	4.1	-	-
96	92014	34.10	3	3	5	9	4	1	6	7	3.7	2.0	5.3	4.0	3.8	-	-
97	92016	38.08	3	3	5	3	3	5	5	7	3.3	2.7	3.9	4.5	2.9	-	-
98	92022	33.21	3	3	5	3	3	5	5	7	3.0	2.7	2.7	4.4	1.9	-	-
99	92023	35.13	3	3	5	5	3	1	5	7	3.0	3.3	3.1	2.2	3.1	-	-

Trait number	Serial number	ICSR number	34	35	36	37	39	40	41	42	43	44	45	46	47	48	49	50
			1000-grain mass (g)	Grain shape-dorsal view	Grain shape-profile view	Grain germ size	Endosperm texture	Albumen color	Grain lustre	Days to seedling emergence	Leaf glossy score	Seedling vigor score	Plant aspect score	Panicle yield (t ha ⁻¹)	Grain yield (t ha ⁻¹)	Plant color	Grain pericarp thickness	Grain hardness in kg by Kaya's hardness tester
			Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Rainy	Rainy	Rainy	Rainy	Rainy	Rainy	Postrainy	Postrainy	Postrainy
100		92026	34.60	3	3	5	5	3	1	5	7	2.3	3.0	3.4	2.4	3.0	-	-
101		92027	35.39	3	3	5	3	3	1	6	7	4.3	3.3	1.8	1.2	3.0	-	-
Control																		
102		CSV 4	32.26	3	3	5	3	3	5	5	7	2.7	2.7	4.0	3.1	2.1	-	-
103		RS 29	28.56	3	3	5	3	3	7	4	6	1.0	2.3	4.1	3.1	1.9	-	-
Mean			31.29	-	-	-	-	-	-	5.25	7.07	2.94	2.58	3.53	2.54	3.53	-	-
SE ±			1.02	-	-	-	-	-	-	0.26	0.20	0.27	0.26	0.44	0.36	0.29	-	-
CV (%)			5.62	-	-	-	-	-	-	8.70	4.88	15.77	17.69	21.75	24.77	14.37	-	-
CD (5%)			2.83	-	-	-	-	-	-	0.74	0.65	0.75	0.73	1.24	1.02	1.06	-	-

Annexure I-14. Characteristics of high yielding (late maturity) sorghum R-lines evaluated during the rainy and post-rainy seasons, 2005 at ICRISSAT-Patancheru.

Serial number	ICSR number	Trait number →		1		2		3		4		5		6		7		8		9		10	
				Coloepile color		Fifth leaf sheath color		Leaf midrib color		Days to 50% flowering		Plant height (m) at flowering		Flag leaf: Extension of midrib		Flag leaf: intensity of green coloration of midrib compared to the blade		Flag leaf: yellow coloration of midrib		Glume hair color		Lemna: anista formation	
		Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy	Rainy	Post-rainy
1	5	1	1	1	1	1	1	2	2	71	69	1.2	0.9	1	1	2	2	1	1	1	1	1	1
2	14	1	1	1	1	1	1	2	2	80	80	1.7	1.0	1	7	2	2	1	1	1	1	1	1
3	44	2	2	3	3	3	3	2	2	79	85	1.5	0.8	1	7	2	2	1	1	1	1	1	1
4	82	2	2	3	3	3	3	2	2	75	86	1.6	1.1	1	1	2	2	1	1	1	1	1	1
5	99	2	2	3	3	3	3	2	2	86	91	1.5	1.0	1	1	2	2	1	1	1	1	1	1
6	132	1	1	1	1	1	1	2	2	77	80	1.4	0.9	1	1	2	2	1	1	1	1	1	1
7	135	2	2	3	3	3	3	2	2	78	91	1.2	1.0	1	1	2	2	1	1	1	1	1	1
8	156	2	2	3	3	3	3	2	2	79	86	1.7	1.2	1	1	2	2	1	1	1	1	1	1
9	185	1	1	1	1	1	1	2	2	80	95	1.7	1.3	1	1	2	2	1	1	1	1	1	1
10	89002	1	1	1	1	1	1	2	2	78	84	1.8	1.1	1	1	2	2	1	1	1	1	1	1
11	89026	2	2	3	3	3	3	2	2	80	85	1.3	1.0	1	1	2	2	1	1	1	1	1	3
12	89055	2	2	3	3	3	3	2	2	70	88	1.9	1.3	1	1	2	2	1	1	1	1	1	1
13	89056	2	1	3	1	3	3	3	3	77	91	2.2	1.2	1	7	2	2	1	1	1	1	1	1
14	89060	2	2	3	3	3	3	2	2	81	89	1.4	0.9	1	1	2	2	1	1	1	1	1	1
15	89062	2	2	3	3	3	3	2	2	80	86	1.3	1.0	1	1	2	2	1	1	1	1	1	1
16	89070	2	2	3	3	3	3	2	2	78	79	1.3	1.0	1	1	2	2	1	1	1	1	1	1
17	90002	2	2	3	3	3	3	2	2	82	84	2.9	1.9	1	1	2	2	1	1	1	1	5	5
18	90013	1	1	1	1	1	1	2	2	88	90	2.0	1.2	1	7	2	2	1	1	1	1	1	1
19	90018	2	2	3	3	3	3	2	2	74	88	1.6	1.0	1	1	2	2	1	1	1	1	1	1
20	90019	2	2	3	3	3	3	2	2	80	83	1.8	1.0	1	1	2	2	1	1	1	1	1	1
21	90027	2	2	3	3	3	3	2	2	77	82	1.3	1.0	1	1	2	2	1	1	1	1	1	1
22	92001	1	1	1	1	1	1	2	2	77	88	1.6	1.2	1	1	2	2	1	1	1	1	1	1
Control																							
23	CSV 4	2	2	3	3	3	3	2	2	69	73	1.1	0.8	1	5	2	2	1	1	1	1	1	1
24	RS 29	2	2	3	3	3	3	2	2	76	83	1.8	1.1	1	1	2	2	1	1	1	1	1	1
Mean		-	-	-	-	-	-	-	-	78	84	1.61	1.07	-	-	-	-	-	-	-	-	-	-
SE ±		-	-	-	-	-	-	-	-	1.25	0.81	0.10	0.03	-	-	-	-	-	-	-	-	-	-
CV (%)		-	-	-	-	-	-	-	-	2.78	1.67	10.49	4.96	-	-	-	-	-	-	-	-	-	-
CD (5%)		-	-	-	-	-	-	-	-	3.60	2.95	0.28	0.20	-	-	-	-	-	-	-	-	-	-

Trait No. 1-41 : Traits stipulated in the DUS-test guidelines (Trait no 38 was not recorded in the current trials).

Trait No. 42-47 : Ancillary traits recorded in the current trials.

Trait No. 48-50 : Monitored traits recorded in various trials conducted earlier at ICRISSAT.

Serial number	ICSR number	11		12		13		14		15		16		17		18		19		20		21	
		Stigma: anthocyanin coloration		Stigma: yellow coloration		Stigma length		Pedicellate flower length		Length of anther		Dried anther color		Glume color		Plant height (m) at maturity		Stem thickness (mm)		Juicy score		Brix reading (%)	
Trait number	→	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
1	5	1	1	5	5	3	3	5	5	5	5	4	4	2	2	1.4	1.1	17.4	13.9	1	1	15.2	16.4
2	14	1	1	5	5	5	5	5	5	5	5	4	4	5	5	1.9	1.2	21.1	19.6	1	1	18.0	19.7
3	44	1	1	1	1	5	5	5	5	3	3	6	4	7	7	1.9	1.1	22.7	24.7	1	1	13.0	16.6
4	82	1	1	1	1	5	5	7	5	5	5	6	4	4	4	2.0	1.5	20.1	17.7	1	1	11.1	17.7
5	99	1	1	5	1	3	3	5	5	5	5	4	4	2	5	1.8	1.3	22.3	20.3	1	1	19.9	18.3
6	132	1	1	1	1	3	3	5	7	5	5	4	4	4	2	1.6	1.2	21.5	19.5	1	1	14.1	19.0
7	135	1	1	1	1	5	5	5	5	5	5	4	4	5	5	1.6	1.3	20.9	20.5	1	2	16.1	15.1
8	156	1	1	1	1	3	3	5	5	3	3	6	4	5	5	2.0	1.6	19.4	19.3	2	1	6.7	14.0
9	185	1	1	5	1	3	3	5	5	5	5	4	4	4	4	2.0	1.6	21.6	19.1	1	1	17.6	19.1
10	89002	1	1	5	5	3	5	7	5	5	5	6	4	5	5	2.3	1.5	17.3	17.6	1	1	16.4	19.6
11	89026	1	1	5	5	5	5	5	5	5	5	4	4	2	7	1.5	1.3	19.1	17.6	1	2	18.9	15.0
12	89055	1	1	5	1	3	5	5	3	3	3	6	4	5	5	2.0	1.5	19.1	16.5	1	1	15.3	18.4
13	89056	1	1	1	1	5	5	7	5	5	5	6	6	5	5	2.5	1.5	20.7	18.8	2	2	12.4	21.4
14	89060	1	1	1	1	5	5	7	5	5	5	4	4	5	5	1.6	1.1	18.1	18.7	1	1	9.1	12.1
15	89062	1	1	1	5	5	5	5	5	3	3	6	4	1	1	1.5	1.3	18.0	18.2	1	1	13.1	16.1
16	89070	1	1	5	1	3	3	5	3	5	5	6	4	4	4	1.7	1.3	19.9	18.3	1	1	7.6	17.6
17	90002	1	1	1	1	5	5	5	5	5	5	4	4	7	7	3.0	2.0	19.0	15.6	1	1	15.6	18.2
18	90013	1	1	1	1	3	5	5	5	5	5	6	4	5	4	2.5	1.6	18.2	16.3	1	1	15.2	17.2
19	90018	1	1	1	1	5	5	7	5	5	5	6	4	4	4	1.9	1.4	20.1	20.1	1	1	9.4	16.6
20	90019	1	1	1	1	3	3	5	3	5	5	4	4	2	2	2.0	1.2	18.6	18.3	1	1	12.7	13.4
21	90027	1	1	1	1	3	5	5	5	5	5	4	4	4	4	1.7	1.3	15.2	17.4	2	1	9.1	17.9
22	92001	1	1	1	1	5	5	5	5	5	5	4	4	4	4	1.9	1.5	18.6	19.2	1	1	19.0	19.4
Control																							
23	CSV 4	1	1	1	1	3	3	5	5	3	3	4	4	4	2	1.4	1.1	17.7	14.6	1	1	12.1	15.2
24	RS 29	1	1	1	1	5	3	5	5	5	5	4	4	5	4	2.0	1.4	16.3	14.6	1	1	16.2	18.8
Mean		-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.90	1.37	19.27	18.10	-	-	13.96	17.18
SE ±		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.09	0.04	0.99	0.98	-	-	1.45	1.27
CV (%)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.08	5.32	8.91	9.39	-	-	18.00	12.78
CD (5%)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.26	0.20	2.85	2.87	-	-	4.17	3.84

Serial number	Trait number	22		23		24		25		26		27		28		29		30		31		32		33	
		Leaf length (cm)		Leaf width (cm)		Panicle length (cm)		Panicle branch length (cm)		Panicle compactness		Panicle shape		Panicle exertion (cm)		Glume coverage (%)		Shattering		Thresholdability%		Grain form		Grain color	
		Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy
1	5	79.3	64.8	9.1	5.7	24.9	22.3	5.2	5.7	7	5	3	3	3	3	0.0	1.0	25.0	33.3	1	1	1	1	1	8
2	14	69.3	60.1	9.8	6.7	27.6	21.3	6.6	5.3	7	5	3	3	3	3	1.0	5.3	25.0	33.3	1	1	1	1	1	8
3	44	79.2	58.2	9.0	6.5	29.6	26.0	7.2	6.8	5	5	3	3	3	3	11.0	5.7	25.0	25.0	1	1	1	1	1	8
4	82	81.0	60.8	8.8	5.6	32.2	25.6	10.2	6.0	7	5	3	3	3	3	5.0	10.0	25.0	25.0	1	1	1	1	1	8
5	99	79.1	62.2	8.9	6.7	22.6	24.8	7.5	6.0	7	5	3	3	3	3	4.0	5.3	25.0	25.0	1	1	1	1	1	1
6	132	76.4	61.2	9.1	6.6	27.4	21.8	7.9	4.9	5	5	3	3	3	3	2.3	6.0	25.0	33.3	1	1	1	1	1	1
7	135	72.3	57.2	9.2	5.6	27.3	23.7	7.2	6.4	5	5	3	3	3	3	7.3	6.7	25.0	25.0	1	1	1	1	1	8
8	156	68.9	64.9	7.8	6.0	32.8	28.1	10.1	7.1	5	5	3	3	3	3	12.0	17.3	50.0	41.7	1	1	1	1	1	8
9	185	78.6	59.0	7.8	6.3	28.9	26.9	9.6	6.3	7	7	3	3	3	3	5.3	12.0	41.7	41.7	1	1	1	1	1	8
10	89002	76.6	59.7	8.1	6.0	32.8	26.6	8.7	5.6	7	5	3	3	3	3	23.3	17.0	25.0	33.3	1	1	1	1	1	1
11	89026	71.7	59.7	8.3	5.9	21.0	24.4	7.4	5.6	7	5	3	3	3	3	2.3	5.3	33.3	41.7	1	1	1	1	1	1
12	89055	76.1	55.6	9.1	7.2	27.2	22.4	7.9	5.8	5	5	3	3	3	3	1.0	1.0	41.7	25.0	1	1	1	1	1	1
13	89056	72.6	55.6	8.8	6.9	31.1	25.2	8.1	6.8	7	7	3	3	3	3	3.3	5.0	33.3	50.0	1	1	1	1	1	1
14	89060	65.9	44.9	8.1	5.7	24.0	21.1	7.8	6.4	7	7	3	3	3	3	1.0	2.0	33.3	41.7	1	1	1	1	1	8
15	89062	67.2	53.0	7.9	5.5	22.2	22.7	8.5	5.9	7	5	3	3	3	3	3.0	14.0	25.0	25.0	1	1	1	1	1	8
16	89070	83.4	62.1	8.9	6.6	28.3	25.0	7.3	6.8	5	5	3	3	3	3	10.7	8.3	25.0	50.0	1	1	1	1	1	8
17	90002	60.3	51.7	7.7	6.7	12.3	12.4	3.6	3.1	7	7	3	3	3	3	2.0	10.7	50.0	25.0	1	1	1	1	1	8
18	90013	67.9	47.4	8.9	6.6	22.8	23.0	7.2	5.4	7	7	3	3	3	3	11.3	14.3	33.3	25.0	1	1	1	1	1	1
19	90018	72.7	60.2	8.7	6.3	28.6	25.2	10.1	7.3	5	5	3	3	3	3	12.3	8.3	25.0	25.0	1	1	1	1	1	8
20	90019	64.4	51.0	8.0	6.4	23.3	21.0	7.8	6.0	7	5	3	3	3	3	2.3	6.0	25.0	25.0	1	1	1	1	1	8
21	90027	73.7	58.4	7.8	5.5	27.8	24.9	7.9	6.2	5	5	3	3	3	3	9.0	5.7	25.0	25.0	1	1	1	1	1	8
22	92001	74.2	61.8	9.5	6.7	24.3	24.1	6.7	5.6	5	5	3	3	3	3	2.0	9.7	25.0	25.0	1	1	1	1	1	8
Control																									
23	CSV 4	68.7	52.7	8.2	5.1	23.9	18.1	6.4	4.4	7	7	3	3	3	3	4.7	7.0	25.0	25.0	1	1	1	1	1	8
24	RS 29	73.9	52.7	9.4	6.8	22.1	20.4	6.6	4.4	5	5	3	3	3	3	2.0	5.0	25.0	30.0	1	1	1	1	1	1
Mean		73.14	57.75	8.60	6.25	26.08	23.20	7.58	5.78	-	-	-	-	-	-	5.64	7.79	29.73	32.00	-	-	-	-	-	-
SE ±		3.53	2.47	0.37	0.32	1.65	0.99	0.89	0.59	-	-	-	-	-	-	0.63	0.54	3.89	4.78	-	-	-	-	-	-
CV (%)		8.37	7.40	7.44	8.76	10.93	7.39	20.32	17.67	-	-	-	-	-	-	19.34	12.00	22.68	25.85	-	-	-	-	-	-
CD (5%)		10.16	8.70	1.06	0.99	4.73	3.82	2.56	2.11	-	-	-	-	-	-	1.79	1.69	11.19	12.28	-	-	-	-	-	-

Trait number →		34	35	36	37	39	40	41	42	43	44	45	46	47	48	49	50
Serial number	ICSR number	1000-grain mass (g)	Grain shape-dorsal view	Grain shape-profile view	Grain germ size	Endosperm texture	Albumen color	Grain lustre	Days to seedling emergence	Leaf glossy score	Seedling vigor score	Plant aspect score	Panicle yield (t ha ⁻¹)	Grain yield (t ha ⁻¹)	Plant color	Grain pericarp thickness	Grain hardness in kg by Kiy's hardness tester
		Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Rainy	Postrainy	Postrainy	Postrainy
1	5	23.32	3	3	5	3	3	5	4	7	1.7	2.0	4.1	3.1	Tan	Thin	10.6
2	14	38.81	3	3	7	3	3	5	4	7	2.3	3.0	3.1	1.9	Tan	Thick	9.8
3	44	28.54	3	3	5	3	3	1	5	8	3.0	2.0	3.2	2.4	Tan	Thin	9.8
4	82	36.03	3	3	5	3	3	7	5	7	3.0	2.3	3.3	2.4	Tan	Thin	8.6
5	99	31.66	3	3	5	3	3	7	6	7	2.3	3.0	2.4	1.4	Tan	Thin	9.1
6	132	31.18	3	3	5	3	3	5	5	7	2.3	3.0	3.6	2.6	Tan	Thin	8.8
7	135	42.46	3	3	5	3	3	5	5	7	2.3	3.0	3.8	2.9	Tan	Thin	11.4
8	156	23.95	3	3	5	3	3	1	6	7	1.0	3.0	4.4	3.3	Tan	Thin	6.9
9	185	28.85	3	3	5	3	3	7	5	7	2.7	3.0	3.0	1.7	Tan	Thin	6.3
10	89002	31.74	3	3	5	3	3	7	5	7	3.0	3.0	3.9	2.8	Tan	Thin	5.2
11	89026	33.01	3	3	5	3	3	7	4	7	2.0	2.7	3.1	2.1	Tan	Thick	10.8
12	89055	30.11	3	3	5	3	3	5	6	8	3.3	3.0	5.9	4.1	Tan	Thin	8.6
13	89056	31.84	3	3	5	3	3	5	6	7	3.0	3.3	5.4	3.8	Tan	Thick	7.0
14	89060	24.27	3	3	5	3	3	1	6	8	3.7	3.3	2.7	1.9	Tan	Thin	8.4
15	89062	28.12	3	3	5	3	3	1	6	7	1.0	3.3	2.7	1.8	Tan	Thin	7.4
16	89070	27.68	3	3	5	3	3	5	5	7	2.0	2.7	4.1	3.2	Tan	Thin	8.4
17	90002	42.67	3	3	5	5	3	1	6	7	1.0	3.0	2.0	1.3	Tan	Thin	8.1
18	90013	23.95	3	3	5	3	3	5	5	7	2.3	3.0	3.0	1.8	Tan	Thin	9.6
19	90018	30.69	3	3	5	3	3	5	6	7	3.0	3.0	4.1	2.8	Tan	Thin	8.8
20	90019	23.85	3	3	5	3	3	5	6	7	1.7	3.3	2.7	1.8	Tan	Thin	7.1
21	90027	29.03	3	3	5	3	3	5	5	7	1.3	3.0	3.5	2.7	Tan	Thin	7.0
22	92001	37.04	3	3	5	3	3	5	5	7	3.0	2.7	3.8	2.7	-	-	-
Control																	
23	CSV 4	28.14	3	3	5	3	3	1	4	7	3.0	2.0	3.7	1.8	-	-	-
24	RS 29	28.54	2	2	5	3	3	7	4	6	3.0	2.3	4.7	3.6	-	-	-
Mean		30.69	-	-	-	-	-	-	5	7	2.43	2.23	2.68	2.51	-	-	-
SE ±		2.68	-	-	-	-	-	-	0.16	0.20	0.25	0.22	0.21	0.36	-	-	-
CV (%)		15.15	-	-	-	-	-	-	5.37	4.93	13.68	14.84	13.58	12.23	-	-	-
CD (5%)		7.64	-	-	-	-	-	-	0.46	0.53	0.64	0.65	0.60	1.03	-	-	-

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 7
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(BTx 623 × UChV2)B lines bulk]-10-1-4
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-1)

- *Days to 50% flowering (R)* : 66 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height (R)* : 1.0 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 2.3 t ha⁻¹
- *Grain yield (PR)* : 2.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.7 cm
- *Panicle length (PR)* : 22.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 5.0 cm
- *Panicle exertion (PR)* : 11.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 31.00 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 10
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(BTx 623 × UChV2)B lines bulk]-10-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-1)

- *Days to 50% flowering (R)* : 65 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height (R)* : 1.1 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 3.0 t ha⁻¹
- *Grain yield (PR)* : 2.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.9 cm
- *Panicle length (PR)* : 23.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 6.7 cm
- *Panicle exertion (PR)* : 7.8 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 31.50 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- **Adaptation** : Rainy/Postrainy/
Summer season
- **Economic product type** : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. Designated number : ICSA/B 25
2. Cytoplasm source : A1 CMS system
3. Pedigree : [(BTx 623 × CSV 4)B lines bulk]-1-1-3
4. Origin & Development : Refer text (page # 2-3)
5. Breeding trait group : High yielding

6. Salient characteristics (Refer Annexure I-1)

- Days to 50% flowering (R) : 61 days
- Days to 50% flowering (PR) : 74 days
- Plant height(R) : 1.5 m
- Plant height (PR) : 1.0 m
- Grain yield (R) : 2.2 t ha⁻¹
- Grain yield (PR) : 2.3 t ha⁻¹
- Panicle shape (R) : Symmetric
- Panicle shape (PR) : Symmetric
- Panicle length (R) : 25.0 cm
- Panicle length (PR) : 17.7 cm
- Panicle type (R) : Semi loose
- Panicle type (PR) : Semi loose
- Panicle exertion (R) : 8.7 cm
- Panicle exertion (PR) : 8.8 cm
- Glume color (R) : Red
- Glume color (PR) : Red
- Grain color (PR) : White
- 1000 – grain weight (PR) : 29.93 g
- Grain shape (PR) : Circular shape in both dorsal and profile view
- Resistance to (if any) : -

7. Potential use

- Adaptation : Rainy/Summer season
- Economic product type : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 36
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(MR 807 × BTx 678)B lines bulk]-6-1-3-5
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-1)

- *Days to 50% flowering (R)* : 64 days
- *Days to 50% flowering (PR)* : 84 days
- *Plant height (R)* : 1.2 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 3.6 t ha⁻¹
- *Grain yield (PR)* : 3.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.6 cm
- *Panicle length (PR)* : 23.3 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 10.6 cm
- *Panicle exertion (PR)* : 12.6 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 25.56 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 57
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : US/B 37-600-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-1)**
 - *Days to 50% flowering (R)* : 66 days
 - *Days to 50% flowering (PR)* : 83 days
 - *Plant height(R)* : 1.1 m
 - *Plant height (PR)* : 0.9 m
 - *Grain yield (R)* : 3.4 t ha⁻¹
 - *Grain yield (PR)* : 2.6 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 28.0 cm
 - *Panicle length (PR)* : 20.7 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 8.1 cm
 - *Panicle exertion (PR)* : 13.0 cm
 - *Glume color (R)* : Green
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 25.66 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 615
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 3 × SAR 35)44-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-1)

- *Days to 50% flowering (R)* : 64 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 2.2 t ha⁻¹
- *Grain yield (PR)* : 2.9 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.7 cm
- *Panicle length (PR)* : 20.2 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 21.1 cm
- *Panicle exertion (PR)* : 10.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 31.43 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 619
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 3 × SAR 35)×ICSB 3]5-2-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-1)

- *Days to 50% flowering (R)* : 62 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.9 t ha⁻¹
- *Grain yield (PR)* : 3.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 33.9 cm
- *Panicle length (PR)* : 26.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 11.0 cm
- *Panicle exertion (PR)* : 14.1 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 31.46 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 622
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 6 × IS 29016)15-2-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-1)

- *Days to 50% flowering (R)* : 63 days
- *Days to 50% flowering (PR)* : 79 days
- *Plant height(R)* : 1.1 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 2.5 t ha⁻¹
- *Grain yield (PR)* : 2.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 22.7 cm
- *Panicle length (PR)* : 19.0 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 6.4 cm
- *Panicle exertion (PR)* : 12.1 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 38.44 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 623
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 11 × PM 17467B)5-1-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-1)

- *Days to 50% flowering (R)* : 67 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height(R)* : 1.0 m
- *Plant height (PR)* : 0.8 m
- *Grain yield (R)* : 1.5 t ha⁻¹
- *Grain yield (PR)* : 3.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 21.0 cm
- *Panicle length (PR)* : 15.6 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 2.9 cm
- *Panicle exertion (PR)* : 8.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 21.72 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 625
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 11 × IS 2815)5-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-1)

- *Days to 50% flowering (R)* : 64 days
- *Days to 50% flowering (PR)* : 74 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 2.5 t ha⁻¹
- *Grain yield (PR)* : 3.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.2 cm
- *Panicle length (PR)* : 20.6 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 12.1 cm
- *Panicle exertion (PR)* : 23.6 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 33.41 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *. *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

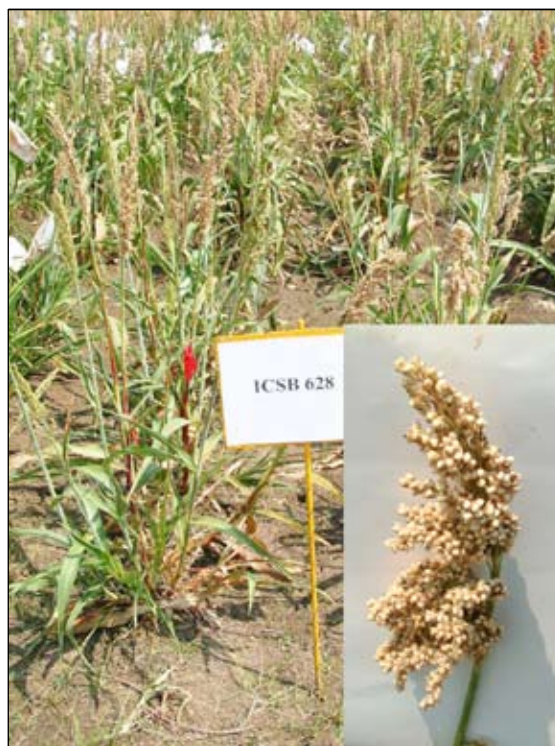
1. **Designated number** : ICSA/B 628
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 37 × IS 21599)12-1-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-1)

- *Days to 50% flowering (R)* : 59 days
- *Days to 50% flowering (PR)* : 73 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.2 t ha⁻¹
- *Grain yield (PR)* : 1.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 31.9 cm
- *Panicle length (PR)* : 23.7 cm
- *Panicle type (R)* : Loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 12.1 cm
- *Panicle exertion (PR)* : 18.6 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 25.91 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 630
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 54 × SAR 35)57-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-1)

- *Days to 50% flowering (R)* : 64 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height(R)* : 0.9 m
- *Plant height (PR)* : 0.7 m
- *Grain yield (R)* : 1.7 t ha⁻¹
- *Grain yield (PR)* : 2.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.3 cm
- *Panicle length (PR)* : 20.3 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 4.3 cm
- *Panicle exertion (PR)* : 3.8 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Green
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.24 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 634
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : IS 10288B
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-1)

- *Days to 50% flowering (R)* : 63 days
- *Days to 50% flowering (PR)* : 70 days
- *Plant height (R)* : 1.3 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.1 t ha⁻¹
- *Grain yield (PR)* : 2.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.6 cm
- *Panicle length (PR)* : 21.1 cm
- *Panicle type (R)* : Loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 17.4 cm
- *Panicle exertion (PR)* : 20.9 cm
- *Glume color (R)* : Brown
- *Glume color (PR)* : Dark orange
- *Grain color (PR)* : Red
- *1000 – grain weight (PR)* : 29.66 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 635
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : IS 10315B
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-1)

- *Days to 50% flowering (R)* : 65 days
- *Days to 50% flowering (PR)* : 76 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.4 t ha-1
- *Grain yield (PR)* : 3.7 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.6 cm
- *Panicle length (PR)* : 20.3 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 13.6 cm
- *Panicle exertion (PR)* : 15.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Light red
- *1000 – grain weight (PR)* : 29.75 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 636
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : IS 10438B
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-1)

- *Days to 50% flowering (R)* : 63 days
- *Days to 50% flowering (PR)* : 73 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.8 t ha⁻¹
- *Grain yield (PR)* : 3.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 23.1 cm
- *Panicle length (PR)* : 19.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 11.0 cm
- *Panicle exertion (PR)* : 15.3 cm
- *Glume color (R)* : Brown
- *Glume color (PR)* : Dark orange
- *Grain color (PR)* : Light red
- *1000 – grain weight (PR)* : 34.31 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 644
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 6 × IS 18432)13-1-2-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-1)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.9 t ha⁻¹
- *Grain yield (PR)* : 3.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 22.0 cm
- *Panicle length (PR)* : 19.9 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 6.2 cm
- *Panicle exertion (PR)* : 9.7 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Green
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 38.11 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 647
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 6 × IS 18432)13-1-2-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-1)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.1 t ha⁻¹
- *Grain yield (PR)* : 3.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 23.4 cm
- *Panicle length (PR)* : 18.9 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 3.7 cm
- *Panicle exertion (PR)* : 11.2 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 39.35 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 88003
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 22 × ICSB 53) × Diallel 7-2-862]-1-5
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-1)**
 - *Days to 50% flowering (R)* : 64 days
 - *Days to 50% flowering (PR)* : 85 days
 - *Plant height(R)* : 1.4 m
 - *Plant height (PR)* : 1.0 m
 - *Grain yield (R)* : 3.3 t ha⁻¹
 - *Grain yield (PR)* : 2.3 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 30.6 cm
 - *Panicle length (PR)* : 23.1 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 4.1 cm
 - *Panicle exertion (PR)* : 7.2 cm
 - *Glume color (R)* : Straw
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 29.48 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : -
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 88019
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (IS 152 × DJ 6514)-8-1-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-1)

- *Days to 50% flowering (R)* : 65 days
- *Days to 50% flowering (PR)* : 95 days
- *Plant height (R)* : 1.4 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 2.2 t ha⁻¹
- *Grain yield (PR)* : 3.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 21.0 cm
- *Panicle length (PR)* : 19.0 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 4.7 cm
- *Panicle exertion (PR)* : 6.1 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Green
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 23.89 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 88020
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (FLR 101 × DJ 6514)-13-1-1-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-1)

- *Days to 50% flowering (R)* : 65 days
- *Days to 50% flowering (PR)* : 92 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 2.6 t ha⁻¹
- *Grain yield (PR)* : 3.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 20.2 cm
- *Panicle length (PR)* : 21.6 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 7.7 cm
- *Panicle exertion (PR)* : 5.8 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 24.15 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 2
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(SC 108-3 × 148) IS 9327]-22-1-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 90 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.9 t ha⁻¹
- *Grain yield (PR)* : 2.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 23.8 cm
- *Panicle length (PR)* : 21.4 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 4.1 cm
- *Panicle exertion (PR)* : 6.8 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 25.74 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 3
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(BT× 622 × UChV2)B lines bulk]-4-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 65 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 3.3 t ha⁻¹
- *Grain yield (PR)* : 2.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 31.2 cm
- *Panicle length (PR)* : 22.8 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 4.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 30.03 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 15
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(BTx 678 × UChV2)B lines bulk]-3-2-5-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 73 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.5 t ha⁻¹
- *Grain yield (PR)* : 2.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 35.7 cm
- *Panicle length (PR)* : 26.9 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 5.2 cm
- *Panicle exertion (PR)* : 9.2 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 24.89 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 17
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(BTx 623 × 1807B)B lines bulk]-18-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 73 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.3 t ha⁻¹
- *Grain yield (PR)* : 2.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 32.6 cm
- *Panicle length (PR)* : 25.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 13.0 cm
- *Panicle exertion (PR)* : 14.9 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 27.43 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 19
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(BTx 623 × 1807B)B lines bulk]-18-3-4
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 72 days
- *Days to 50% flowering (PR)* : 72 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.9 t ha⁻¹
- *Grain yield (PR)* : 3.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.8 cm
- *Panicle length (PR)* : 21.3 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 12.0 cm
- *Panicle exertion (PR)* : 14.4 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 30.67 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 20
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(BTx 623 × CSV 4)B lines bulk]-4-2-5
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 74 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.1 t ha⁻¹
- *Grain yield (PR)* : 4.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.2 cm
- *Panicle length (PR)* : 23.9 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 14.8 cm
- *Panicle exertion (PR)* : 16.9 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 30.03 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 23
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(BTx 623 × CSV 4)B lines bulk]-7-2-4
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 71 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.0 t ha⁻¹
- *Grain yield (PR)* : 3.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 32.4 cm
- *Panicle length (PR)* : 27.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.2 cm
- *Panicle exertion (PR)* : 6.4 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 26.01 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 24
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(BTx 623 × CSV 4)B lines bulk]-7-4-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 66 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 2.6 t ha⁻¹
- *Grain yield (PR)* : 3.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 32.1 cm
- *Panicle length (PR)* : 24.9 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 5.9 cm
- *Panicle exertion (PR)* : 8.2 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 26.57 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 29
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(MR 876 x BT× 678)B lines bulk]-11-4-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 3.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.3 cm
- *Panicle length (PR)* : 19.7 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 11.9 cm
- *Panicle exertion (PR)* : 17.8 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 26.81 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 34
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(MR 807 × BTx 624)B lines bulk]-5-5-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 69 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 2.8 t ha⁻¹
- *Grain yield (PR)* : 3.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.8 cm
- *Panicle length (PR)* : 22.9 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 11.0 cm
- *Panicle exertion (PR)* : 12.7 cm
- *Glume color (R)* : Yellow
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 27.98 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 41
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(BTx 623 × MR 862)B lines bulk]-5-3-6-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 69 days
- *Days to 50% flowering (PR)* : 87 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.4 t ha⁻¹
- *Grain yield (PR)* : 2.0 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 33.6 cm
- *Panicle length (PR)* : 26.9 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 14.2 cm
- *Panicle exertion (PR)* : 15.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.41 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 47
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : Rs/B 933-4
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-2)**
 - *Days to 50% flowering (R)* : 69 days
 - *Days to 50% flowering (PR)* : 91 days
 - *Plant height(R)* : 1.4 m
 - *Plant height (PR)* : 1.1 m
 - *Grain yield (R)* : 2.3 t ha-1
 - *Grain yield (PR)* : 2.8 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 28.7 cm
 - *Panicle length (PR)* : 22.8 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 2.9 cm
 - *Panicle exertion (PR)* : 6.9 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 22.27 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : -
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 54
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : Diallal 346-8556-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 71 days
- *Days to 50% flowering (PR)* : 88 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.3 t ha⁻¹
- *Grain yield (PR)* : 3.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 21.8 cm
- *Panicle length (PR)* : 18.0 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 6.1 cm
- *Panicle exertion (PR)* : 11.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.17 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 59
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : DH 519-18-1-6-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 67 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.2 t ha⁻¹
- *Grain yield (PR)* : 2.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.2 cm
- *Panicle length (PR)* : 21.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.2 cm
- *Panicle exertion (PR)* : 13.9 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 27.12 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 67
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(IS 12645C × CSV 4) × IS 9327]-27-2-2-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : **High yielding**

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 66 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.5 t ha⁻¹
- *Grain yield (PR)* : 2.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.7 cm
- *Panicle length (PR)* : 21.3 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 10.4 cm
- *Panicle exertion (PR)* : 14.2 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 27.88 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 82
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (Ind. Syn. 422-1 × US/R-20-682)-5-1-3-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 1.1 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 2.8 t ha⁻¹
- *Grain yield (PR)* : 4.0 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 23.7 cm
- *Panicle length (PR)* : 21.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 3.6 cm
- *Panicle exertion (PR)* : 3.8 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.38 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 94
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(296B × SPV 105) × (2077B × M 35-1)]-21
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-2)**
 - *Days to 50% flowering (R)* : 71 days
 - *Days to 50% flowering (PR)* : 91 days
 - *Plant height(R)* : 1.7 m
 - *Plant height (PR)* : 1.3 m
 - *Grain yield (R)* : 3.1 t ha⁻¹
 - *Grain yield (PR)* : 3.5 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 21.6 cm
 - *Panicle length (PR)* : 18.1 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Compact
 - *Panicle exertion (R)* : 1.2 cm
 - *Panicle exertion (PR)* : 4.6 cm
 - *Glume color (R)* : Straw
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 32.77 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : -
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 617
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 3 × SAR 35)×ICSB 3]3-4
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 1.8 t ha-1
- *Grain yield (PR)* : 2.2 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.6 cm
- *Panicle length (PR)* : 21.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 4.8 cm
- *Panicle exertion (PR)* : 10.1 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 30.69 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 618
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 3 × SAR 35)×ICSB 3]3-4-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 64 days
- *Days to 50% flowering (PR)* : 72 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 2.6 t ha⁻¹
- *Grain yield (PR)* : 2.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.0 cm
- *Panicle length (PR)* : 21.9 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 13.7 cm
- *Panicle exertion (PR)* : 14.2 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Purple
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 34.07 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 620
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 6 × IS 18432)1-2-2-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 66 days
- *Days to 50% flowering (PR)* : 76 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 3.2 t ha⁻¹
- *Grain yield (PR)* : 3.4 t ha⁻¹
- *Panicle shape (R)* : Broader in lower part
- *Panicle shape (PR)* : Broader in lower part
- *Panicle length (R)* : 18.4 cm
- *Panicle length (PR)* : 16.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 13.7 cm
- *Panicle exertion (PR)* : 12.2 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 40.79 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 621
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 6 × IS 18432)13-2-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 71 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 2.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.1 cm
- *Panicle length (PR)* : 17.2 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 11.2 cm
- *Panicle exertion (PR)* : 13.9 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 35.30 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 626
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 11 × IS 2815)44-3-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 61 days
- *Days to 50% flowering (PR)* : 76 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 2.8 t ha⁻¹
- *Grain yield (PR)* : 2.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.4 cm
- *Panicle length (PR)* : 18.4 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 11.4 cm
- *Panicle exertion (PR)* : 22.0 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Black
- *Grain color (PR)* : Light red
- *1000 – grain weight (PR)* : 32.38 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 637
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : IS 10440B
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 65 days
- *Days to 50% flowering (PR)* : 76 days
- *Plant height(R)* : 1.1 m
- *Plant height (PR)* : 0.8 m
- *Grain yield (R)* : 2.0 t ha⁻¹
- *Grain yield (PR)* : 3.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.8 cm
- *Panicle length (PR)* : 20.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 5.7 cm
- *Panicle exertion (PR)* : 9.9 cm
- *Glume color (R)* : Black
- *Glume color (PR)* : Black
- *Grain color (PR)* : Light red
- *1000 – grain weight (PR)* : 28.69 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 638
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 6 × IS 18425)1-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 3.5 t ha⁻¹
- *Grain yield (PR)* : 3.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 22.8 cm
- *Panicle length (PR)* : 19.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 5.4 cm
- *Panicle exertion (PR)* : 14.7 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.40 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 639
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 6 × IS 18525)4-1-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 66 days
- *Days to 50% flowering (PR)* : 74 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.0 t ha⁻¹
- *Grain yield (PR)* : 2.2 t ha⁻¹
- *Panicle shape (R)* : Semi compact
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.3 cm
- *Panicle length (PR)* : 19.8 cm
- *Panicle type (R)* : -
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 5.1 cm
- *Panicle exertion (PR)* : 17.4 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 41.19 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 640
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 6 × IS 18525)4-1-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 71 days
- *Days to 50% flowering (PR)* : 75 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.3 t ha⁻¹
- *Grain yield (PR)* : 1.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Broader in lower part
- *Panicle length (R)* : 27.2 cm
- *Panicle length (PR)* : 18.8 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 8.7 cm
- *Panicle exertion (PR)* : 17.0 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Green
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 40.56 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 643
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 6 × IS 18432)13-1-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 3.0 t ha⁻¹
- *Grain yield (PR)* : 3.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 21.9 cm
- *Panicle length (PR)* : 18.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 5.0 cm
- *Panicle exertion (PR)* : 7.6 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 40.02 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 645
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 6 × IS 18432)13-1-2-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 67 days
- *Days to 50% flowering (PR)* : 79 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.1 t ha⁻¹
- *Grain yield (PR)* : 3.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Broader in lower part
- *Panicle length (R)* : 23.8 cm
- *Panicle length (PR)* : 20.7 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 6.0 cm
- *Panicle exertion (PR)* : 12.4 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Green
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 38.63 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 646
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 6 × IS 18432)13-1-2-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 67 days
- *Days to 50% flowering (PR)* : 79 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 2.9 t ha⁻¹
- *Grain yield (PR)* : 3.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Broader in lower part
- *Panicle length (R)* : 23.3 cm
- *Panicle length (PR)* : 19.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 3.2 cm
- *Panicle exertion (PR)* : 8.3 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Green
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 37.88 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 648
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 6 × IS 18432)13-1-2-3-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 71 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.8 t ha⁻¹
- *Grain yield (PR)* : 3.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.0 cm
- *Panicle length (PR)* : 19.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 1.8 cm
- *Panicle exertion (PR)* : 9.2 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Green
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 39.30 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 649
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 6 × IS 18432)13-3 × {296 B × (296 B × QL 3)} 27-2-1-7-2-5-1]3-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-2)**
 - *Days to 50% flowering (R)* : 79 days
 - *Days to 50% flowering (PR)* : 86 days
 - *Plant height(R)* : 1.7 m
 - *Plant height (PR)* : 1.3 m
 - *Grain yield (R)* : 4.0 t ha-1
 - *Grain yield (PR)* : 3.8 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Broader in lower part
 - *Panicle length (R)* : 24.6 cm
 - *Panicle length (PR)* : 18.6 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 0.0 cm
 - *Panicle exertion (PR)* : 4.4 cm
 - *Glume color (R)* : Green
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 31.38 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : -
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/ Summer season
 - *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 650
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 6 × IS 18432)13-3 × {296 B × (296 B × QL 3)} 27-2-2-2-6-2-2-1]1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-2)**
 - *Days to 50% flowering (R)* : 75 days
 - *Days to 50% flowering (PR)* : 82 days
 - *Plant height(R)* : 1.4 m
 - *Plant height (PR)* : 1.0 m
 - *Grain yield (R)* : 2.9 t ha-1
 - *Grain yield (PR)* : 3.6 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 22.8 cm
 - *Panicle length (PR)* : 17.4 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 2.3 cm
 - *Panicle exertion (PR)* : 8.3 cm
 - *Glume color (R)* : Green
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 30.12 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : -
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/ Summer season
 - *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 658
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 37 × PM 17500-2-1)9-1-1-1-4
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 75 days
- *Days to 50% flowering (PR)* : 90 days
- *Plant height (R)* : 1.3 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.4 t ha⁻¹
- *Grain yield (PR)* : 4.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.6 cm
- *Panicle length (PR)* : 21.2 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 2.4 cm
- *Panicle exertion (PR)* : 7.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.49 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 660
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 51 × ICSV 700)9-4-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 74 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 3.2 t ha⁻¹
- *Grain yield (PR)* : 3.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.0 cm
- *Panicle length (PR)* : 18.4 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 10.1 cm
- *Panicle exertion (PR)* : 12.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.57 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 663
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 101 × QL 3) × (ICSB 6 × PM 17467B)]3-1-1-3-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-2)**
 - *Days to 50% flowering (R)* : 76 days
 - *Days to 50% flowering (PR)* : 100 days
 - *Plant height(R)* : 1.3 m
 - *Plant height (PR)* : 0.9 m
 - *Grain yield (R)* : 2.9 t ha-1
 - *Grain yield (PR)* : 2.3 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 31.8 cm
 - *Panicle length (PR)* : 29.0 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 0.0 cm
 - *Panicle exertion (PR)* : 0.0 cm
 - *Glume color (R)* : Green
 - *Glume color (PR)* : Green
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 30.80 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : -
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/ Summer season
 - *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 665
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B × (296 B × QL 3)]28-3-3-2-1-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 71 days
- *Days to 50% flowering (PR)* : 90 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.5 t ha⁻¹
- *Grain yield (PR)* : 1.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 33.4 cm
- *Panicle length (PR)* : 27.3 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 4.2 cm
- *Panicle exertion (PR)* : 3.4 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 33.37 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 666
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(IS 18425 × ICSB 6) × PM 17467B]4-5-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-2)**
 - *Days to 50% flowering (R)* : 71 days
 - *Days to 50% flowering (PR)* : 81 days
 - *Plant height(R)* : 1.9 m
 - *Plant height (PR)* : 1.4 m
 - *Grain yield (R)* : 2.1 t ha⁻¹
 - *Grain yield (PR)* : 1.8 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 24.6 cm
 - *Panicle length (PR)* : 19.2 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 17.0 cm
 - *Panicle exertion (PR)* : 20.2 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 34.60 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : -
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 668
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(IS 18425×ICSB 6)×PM17467B]11-3-1-2-5-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-2)**
 - *Days to 50% flowering (R)* : 67 days
 - *Days to 50% flowering (PR)* : 75 days
 - *Plant height(R)* : 1.4 m
 - *Plant height (PR)* : 1.0 m
 - *Grain yield (R)* : 2.9 t ha⁻¹
 - *Grain yield (PR)* : 2.8 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 28.3 cm
 - *Panicle length (PR)* : 18.9 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 6.8 cm
 - *Panicle exertion (PR)* : 11.4 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 36.84 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : -
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 88004
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSR 87 × ICSR 37) × ICSB 12]-4-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 76 days
- *Days to 50% flowering (PR)* : 91 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.2 t ha⁻¹
- *Grain yield (PR)* : 2.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 32.6 cm
- *Panicle length (PR)* : 23.9 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 3.3 cm
- *Panicle exertion (PR)* : 18.1 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 27.44 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 88005
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 11 × ICSB 7) × DM 50]-1-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 72 days
- *Days to 50% flowering (PR)* : 85 days
- *Plant height (R)* : 1.4 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 3.0 t ha⁻¹
- *Grain yield (PR)* : 2.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 31.0 cm
- *Panicle length (PR)* : 24.4 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 15.0 cm
- *Panicle exertion (PR)* : 14.1 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 29.99 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 88006
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 11 × ICSB 7) × DM 50]-1-3-1-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 77 days
- *Days to 50% flowering (PR)* : 91 days
- *Plant height(R)* : 1.3 m
- 8 *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 3.3 t ha⁻¹
- *Grain yield (PR)* : 2.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 35.1 cm
- *Panicle length (PR)* : 25.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 11.0 cm
- * *Panicle exertion (PR)* : 20.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 31.58 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 88008
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 4 × ICSB 13) × ICSB 7]-4-1-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 76 days
- *Days to 50% flowering (PR)* : 86 days
- *Plant height (R)* : 1.3 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.9 t ha⁻¹
- *Grain yield (PR)* : 2.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 33.2 cm
- *Panicle length (PR)* : 24.4 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 5.8 cm
- *Panicle exertion (PR)* : 14.8 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 27.87 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 88009
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 4 × ICSB 13) × ICSB 7]-4-4-5-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 77 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.2 t ha⁻¹
- *Grain yield (PR)* : 2.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.8 cm
- *Panicle length (PR)* : 22.3 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 19.1 cm
- *Panicle exertion (PR)* : 18.4 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 27.46 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 88012
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (Ind. Syn. 89-1 × Ind. Syn. 89-2-2)-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 67 days
- *Days to 50% flowering (PR)* : 84 days
- *Plant height (R)* : 1.4 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 3.2 t ha⁻¹
- *Grain yield (PR)* : 2.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 30.6 cm
- *Panicle length (PR)* : 22.4 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 9.4 cm
- *Panicle exertion (PR)* : 6.8 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 29.74 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 88014
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (BTx 622 × 2219B)-2-1-2-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 71 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 3.7 t ha⁻¹
- *Grain yield (PR)* : 2.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 34.0 cm
- *Panicle length (PR)* : 23.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 4.7 cm
- *Panicle exertion (PR)* : 15.6 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Purple
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 26.91 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 88015
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (BTx 622 × 2219B)-2-1-2-1-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 69 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.3 t ha⁻¹
- *Grain yield (PR)* : 2.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.9 cm
- *Panicle length (PR)* : 23.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 4.3 cm
- *Panicle exertion (PR)* : 8.9 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Purple
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 32.78 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 89002
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (Ind. Syn. 422-1 × Rs/R-20-682)-5-1-6-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 74 days
- *Days to 50% flowering (PR)* : 88 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 3.3 t ha⁻¹
- *Grain yield (PR)* : 2.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.8 cm
- *Panicle length (PR)* : 18.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 8.4 cm
- *Panicle exertion (PR)* : 12.6 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 24.55 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 90002
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [ICSB 3 × ((BTx 678 × UChV2) × B lines bulk)-3-4×ICSR 7]-5
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 76 days
- *Days to 50% flowering (PR)* : 86 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.2 t ha-1
- *Grain yield (PR)* : 2.5 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 33.6 cm
- *Panicle length (PR)* : 25.4 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 8.2 cm
- *Panicle exertion (PR)* : 21.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 27.95 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 90004
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(IS 5604 × 23/2 × CSV 4) × CSV 4]-3-1-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 82 days
- *Days to 50% flowering (PR)* : 85 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.4 t ha⁻¹
- *Grain yield (PR)* : 2.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 23.4 cm
- *Panicle length (PR)* : 17.6 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 4.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Green
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 20.05 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 91004
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 3 × ICSR 72) × (ICSB 11)]-9-4-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-2)

- *Days to 50% flowering (R)* : 74 days
- *Days to 50% flowering (PR)* : 86 days
- *Plant height (R)* : 1.6 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 4.0 t ha⁻¹
- *Grain yield (PR)* : 2.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.3 cm
- *Panicle length (PR)* : 24.3 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 10.1 cm
- *Panicle exertion (PR)* : 12.4 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 29.35 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 208
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 37 × SP 36257)5-2-2-2× 296 B × (296 B × QL 3)27-2-2-6-2-3-1]-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-3)**
 - *Days to 50% flowering (R)* : 66 days
 - *Days to 50% flowering (PR)* : 76 days
 - *Plant height(R)* : 1.8 m
 - *Plant height (PR)* : 1.2 m
 - *Grain yield (R)* : 2.4 t ha⁻¹
 - *Grain yield (PR)* : 1.5 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 33.8 cm
 - *Panicle length (PR)* : 24.8 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 7.0 cm
 - *Panicle exertion (PR)* : 9.3 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 25.09 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to downy mildew
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Forage/Dual purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 268
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 11 × TRL 74/C 57) × ICSB 6]7-5-1-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-3)**
 - *Days to 50% flowering (R)* : 72 days
 - *Days to 50% flowering (PR)* : 76 days
 - *Plant height(R)* : 1.4 m
 - *Plant height (PR)* : 1.1 m
 - *Grain yield (R)* : 3.0 t ha⁻¹
 - *Grain yield (PR)* : 1.9 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 31.3 cm
 - *Panicle length (PR)* : 28.3 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 10.0 cm
 - *Panicle exertion (PR)* : 15.0 cm
 - *Glume color (R)* : Straw
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 36.02 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to anthracnose
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/ Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 311
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 101 × TRL 74/C 57)×PM 17467B]3-2-1-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-3)**
 - *Days to 50% flowering (R)* : 70 days
 - *Days to 50% flowering (PR)* : 79 days
 - *Plant height(R)* : 1.2 m
 - *Plant height (PR)* : 0.9 m
 - *Grain yield (R)* : 1.5 t ha⁻¹
 - *Grain yield (PR)* : 1.7 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 23.4 cm
 - *Panicle length (PR)* : 18.8 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 0.3 cm
 - *Panicle exertion (PR)* : 0.3 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 35.46 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to leaf blight
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 329
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 11 × PM 1861)4-4-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-3)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 74 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 2.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.3 cm
- *Panicle length (PR)* : 25.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 9.7 cm
- *Panicle exertion (PR)* : 19.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 33.77 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to rust

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 363
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 11 × IS 2815)25-1-3-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-3)

- *Days to 50% flowering (R)* : 66 days
- *Days to 50% flowering (PR)* : 76 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 2.9 t ha⁻¹
- *Grain yield (PR)* : 3.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.3 cm
- *Panicle length (PR)* : 21.0 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 13.3 cm
- *Panicle exertion (PR)* : 16.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Pearly white
- *1000 – grain weight (PR)* : 31.50 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 364
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 11 × IS 2815)25-1-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-3)

- *Days to 50% flowering (R)* : 66 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.5 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 3.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.6 cm
- *Panicle length (PR)* : 21.2 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 7.0 cm
- *Panicle exertion (PR)* : 19.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.60 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 373
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 11 × IS 2815)34-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-3)

- *Days to 50% flowering (R)* : 65 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 2.0 m
- *Plant height (PR)* : 1.7 m
- *Grain yield (R)* : 2.5 t ha⁻¹
- *Grain yield (PR)* : 4.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.8 cm
- *Panicle length (PR)* : 22.9 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 11.7 cm
- *Panicle exertion (PR)* : 20.0 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Light red
- *1000 – grain weight (PR)* : 34.64 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 375
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 11 × IS 2815)43-1-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-3)

- *Days to 50% flowering (R)* : 65 days
- *Days to 50% flowering (PR)* : 82 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.6 m
- *Grain yield (R)* : 3.0 t ha⁻¹
- *Grain yield (PR)* : 4.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.9 cm
- *Panicle length (PR)* : 22.7 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 11.0 cm
- *Panicle exertion (PR)* : 18.3 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Brown
- *Grain color (PR)* : Light red
- *1000 – grain weight (PR)* : 35.05 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 380
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 11 × IS 2815)61-2-1-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-3)

- *Days to 50% flowering (R)* : 65 days
- *Days to 50% flowering (PR)* : 71 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 3.1 t ha⁻¹
- *Grain yield (PR)* : 1.9 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.8 cm
- *Panicle length (PR)* : 22.3 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 10.3 cm
- *Panicle exertion (PR)* : 27.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 35.24 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 385
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 17 × IS 21599)14-1-2-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-3)

- *Days to 50% flowering (R)* : 65 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.8 t ha⁻¹
- *Grain yield (PR)* : 2.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.8 cm
- *Panicle length (PR)* : 22.4 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 12.3 cm
- *Panicle exertion (PR)* : 17.7 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Brown
- *Grain color (PR)* : Light red
- *1000 – grain weight (PR)* : 29.12 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 386
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 17 × IS 21599)32-1-1-3-4-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-3)

- *Days to 50% flowering (R)* : 64 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.5 m
- *Grain yield (R)* : 3.4 t ha⁻¹
- *Grain yield (PR)* : 3.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 30.1 cm
- *Panicle length (PR)* : 24.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 12.7 cm
- *Panicle exertion (PR)* : 19.0 cm
- *Glume color (R)* : Brown
- *Glume color (PR)* : Brown
- *Grain color (PR)* : Light red
- *1000 – grain weight (PR)* : 33.32 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. Designated number : ICSA/B 388
2. Cytoplasm source : A1 CMS system
3. Pedigree : (ICSB 37 × IS 21599)4-1-3-2-1-2
4. Origin & Development : Refer text (page # 2-3)
5. Breeding trait group : Disease resistance

6. Salient characteristics (Refer Annexure I-3)

- Days to 50% flowering (R) : 66 days
 - Days to 50% flowering (PR) : 79 days
 - Plant height(R) : 2.0 m
 - Plant height (PR) : 1.7 m
 - Grain yield (R) : 3.0 t ha⁻¹
 - Grain yield (PR) : 3.6 t ha⁻¹
 - Panicle shape (R) : Symmetric
 - Panicle shape (PR) : Symmetric
 - Panicle length (R) : 30.6 cm
 - Panicle length (PR) : 24.2 cm
 - Panicle type (R) : Semi loose
 - Panicle type (PR) : Semi compact
 - Panicle exertion (R) : 9.3 cm
 - Panicle exertion (PR) : 22.3 cm
 - Glume color (R) : Purple
 - Glume color (PR) : Brown
 - Grain color (PR) : Light red
 - 1000 – grain weight (PR) : 29.07 g
 - Grain shape (PR) : Circular shape in both dorsal and profile view
 - Resistance to (if any) : Tolerant to grain mold
- ### 7. Potential use
- Adaptation : Rainy/Summer season
 - Economic product type : Forage/Dual purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 390
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 37 × IS 21599)14-1-3-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-3)

- *Days to 50% flowering (R)* : 65 days
- *Days to 50% flowering (PR)* : 99 days
- *Plant height(R)* : 2.0 m
- *Plant height (PR)* : 2.0 m
- *Grain yield (R)* : 3.3 t ha⁻¹
- *Grain yield (PR)* : 2.9 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 30.3 cm
- *Panicle length (PR)* : 27.8 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 13.0 cm
- *Panicle exertion (PR)* : 24.3 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Red
- *1000 – grain weight (PR)* : 25.62 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 408
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (IS 3436 × PQ 35B)8-1-1-2-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-3)

- *Days to 50% flowering (R)* : 62 days
- *Days to 50% flowering (PR)* : 76 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 4.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.2 cm
- *Panicle length (PR)* : 24.2 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 6.7 cm
- *Panicle exertion (PR)* : 10.0 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Brown
- *Grain color (PR)* : Light red
- *1000 – grain weight (PR)* : 37.83 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 202
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 37 × SP 36257)5-2-1-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 76 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 4.2 t ha⁻¹
- *Grain yield (PR)* : 2.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.4 cm
- *Panicle length (PR)* : 22.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 17.7 cm
- *Panicle exertion (PR)* : 11.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.54 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 216
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (296 B × QL 3)1-2-6-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 75 days
- *Days to 50% flowering (PR)* : 87 days
- *Plant height(R)* : 1.1 m
- *Plant height (PR)* : 0.8 m
- *Grain yield (R)* : 2.2 t ha⁻¹
- *Grain yield (PR)* : 2.9 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.0 cm
- *Panicle length (PR)* : 22.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 5.0 cm
- *Glume color (R)* : Cream
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 23.44 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 217
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (296 B × QL 3)5-1-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 72 days
- *Days to 50% flowering (PR)* : 90 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 1.8 t ha⁻¹
- *Grain yield (PR)* : 2.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.3 cm
- *Panicle length (PR)* : 17.9 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 3.3 cm
- *Panicle exertion (PR)* : 7.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.28 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 218
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (296 B × QL 3)27-2-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4) □

- *Days to 50% flowering (R)* : 81 days
- *Days to 50% flowering (PR)* : 89 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 1.5 t ha⁻¹
- *Grain yield (PR)* : 2.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.1 cm
- *Panicle length (PR)* : 22.8 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 2.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 25.17 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 220
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]27-2-1-2-2-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 81 days
- *Days to 50% flowering (PR)* : 95 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 3.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 33.0 cm
- *Panicle length (PR)* : 24.2 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 0.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 25.01 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 223
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]27-2-12-9-2-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 80 days
- *Days to 50% flowering (PR)* : 97 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.3 t ha⁻¹
- *Grain yield (PR)* : 2.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 33.7 cm
- *Panicle length (PR)* : 28.2 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 0.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 26.91 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 224
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]27-2-12-9-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 81 days
- *Days to 50% flowering (PR)* : 97 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.5 t ha⁻¹
- *Grain yield (PR)* : 2.9 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 35.0 cm
- *Panicle length (PR)* : 23.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 4.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.78 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 225
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]27-2-1-2-9-3-4
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4) □

- *Days to 50% flowering (R)* : 82 days
- *Days to 50% flowering (PR)* : 96 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 1.6 t ha⁻¹
- *Grain yield (PR)* : 2.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 32.3 cm
- *Panicle length (PR)* : 26.8 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 3.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 27.96 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 226
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]27-2-1-2-9-6-4-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 79 days
- *Days to 50% flowering (PR)* : 91 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 3.3 t ha⁻¹
- *Grain yield (PR)* : 2.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 34.9 cm
- *Panicle length (PR)* : 25.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 5.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 33.88 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 227
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]27-2-1-2-9-6-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 79 days
- *Days to 50% flowering (PR)* : 90 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.8 t ha⁻¹
- *Grain yield (PR)* : 2.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 33.9 cm
- *Panicle length (PR)* : 25.2 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 3.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 33.85 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 228
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]27-2-1-2-9-5
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 80 days
- *Days to 50% flowering (PR)* : 98 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 1.7 t ha⁻¹
- *Grain yield (PR)* : 2.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 32.3 cm
- *Panicle length (PR)* : 24.2 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 1.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.34 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 229
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]27-2-1-4-6-4-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 81 days
- *Days to 50% flowering (PR)* : 99 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 3.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 34.4 cm
- *Panicle length (PR)* : 25.0 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 1.3 cm
- *Panicle exertion (PR)* : 9.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.05 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 230
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]27-2-1-7-1-1-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 81 days
- *Days to 50% flowering (PR)* : 86 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.9 t ha⁻¹
- *Grain yield (PR)* : 2.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 34.2 cm
- *Panicle length (PR)* : 26.9 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 6.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 31.11 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 231
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]27-2-1-7-1-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 79 days
- *Days to 50% flowering (PR)* : 88 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.3 t ha⁻¹
- *Grain yield (PR)* : 3.0 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 32.8 cm
- *Panicle length (PR)* : 26.9 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 5.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Green
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.06 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 245
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]28-3-3-2-1-1-1-3-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 81 days
- *Days to 50% flowering (PR)* : 97 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.9 t ha⁻¹
- *Grain yield (PR)* : 3.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 35.8 cm
- *Panicle length (PR)* : 25.2 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 4.7 cm
- *Panicle exertion (PR)* : 9.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.08 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 249
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]28-3-3-5-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 69 days
- *Days to 50% flowering (PR)* : 90 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 3.1 t ha⁻¹
- *Grain yield (PR)* : 3.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 34.2 cm
- *Panicle length (PR)* : 27.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 2.3 cm
- *Panicle exertion (PR)* : 2.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Pearly white
- *1000 – grain weight (PR)* : 30.95 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 251
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]28-3-3-5-1-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 76 days
- *Days to 50% flowering (PR)* : 92 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.0 t ha⁻¹
- *Grain yield (PR)* : 3.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 30.9 cm
- *Panicle length (PR)* : 25.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 8.0 cm
- *Panicle exertion (PR)* : 9.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 33.09 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 252
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]28-3-3-5-1-1-4-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 73 days
- *Days to 50% flowering (PR)* : 91 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.9 t ha⁻¹
- *Grain yield (PR)* : 3.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 31.9 cm
- *Panicle length (PR)* : 26.2 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 11.0 cm
- *Panicle exertion (PR)* : 10.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.64 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 253
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]28-3-3-5-1-1-6-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 72 days
- *Days to 50% flowering (PR)* : 89 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.5 t ha⁻¹
- *Grain yield (PR)* : 2.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 30.0 cm
- *Panicle length (PR)* : 25.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 4.0 cm
- *Panicle exertion (PR)* : 9.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.11 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 255
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]28-3-6-5-3-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 86 days
- *Days to 50% flowering (PR)* : 96 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 1.4 t ha⁻¹
- *Grain yield (PR)* : 2.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 30.1 cm
- *Panicle length (PR)* : 24.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 3.3 cm
- *Panicle exertion (PR)* : 8.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.61 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

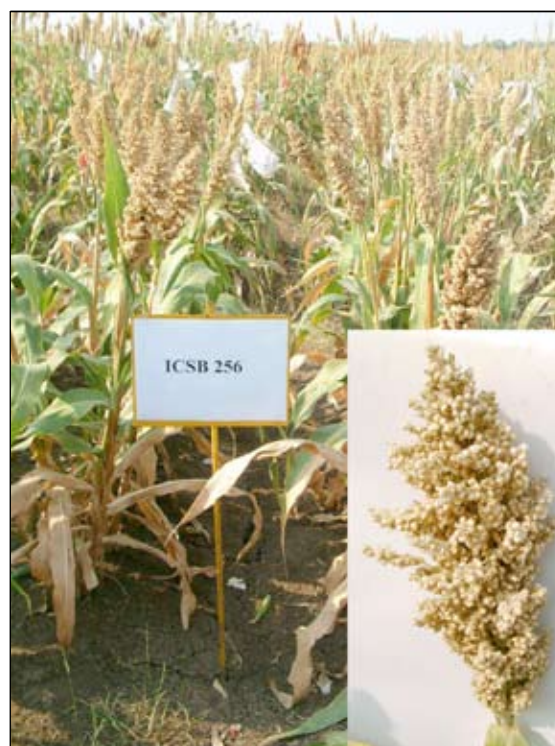
1. **Designated number** : ICSA/B 256
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]28-3-6-11-1-4-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 79 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.7 t ha⁻¹
- *Grain yield (PR)* : 2.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 36.0 cm
- *Panicle length (PR)* : 26.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 3.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 33.48 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

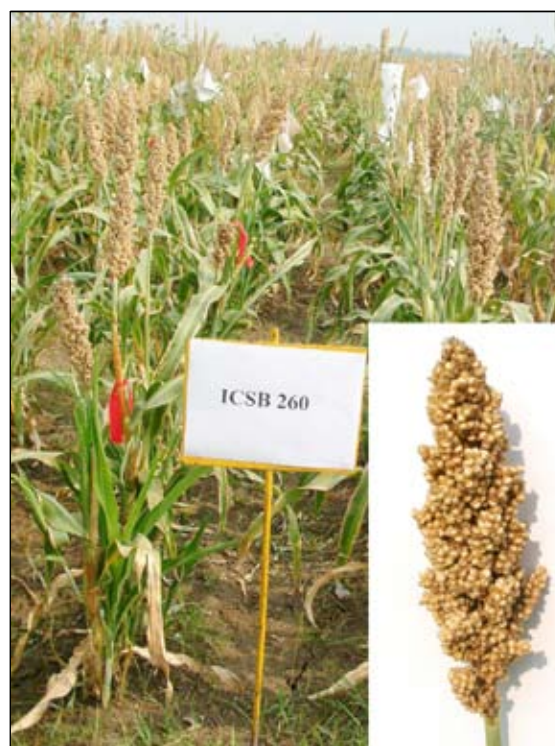
1. **Designated number** : ICSA/B 260
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 11 × TRL 74/C 57)×PM 17467B]6-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 73 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.0 t ha⁻¹
- *Grain yield (PR)* : 2.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.6 cm
- *Panicle length (PR)* : 18.7 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 9.0 cm
- *Panicle exertion (PR)* : 10.3 cm
- *Glume color (R)* : Yellow
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 25.00 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to anthracnose

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 262
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 11 × TRL 74/C 57)×ICSB 6]6-4-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 72 days
- *Days to 50% flowering (PR)* : 85 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 3.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.7 cm
- *Panicle length (PR)* : 23.4 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 7.3 cm
- *Panicle exertion (PR)* : 10.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 31.29 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to anthracnose

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 263
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 11 × TRL 74/C 57)×ICSB 6]6-4-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 71 days
- *Days to 50% flowering (PR)* : 88 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 3.0 t ha⁻¹
- *Grain yield (PR)* : 2.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.6 cm
- *Panicle length (PR)* : 22.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 3.3 cm
- *Panicle exertion (PR)* : 13.0 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 32.99 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to anthracnose

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 265
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 11 × TRL 74/C 57)×ICSB 6]7-5-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 74 days
- *Days to 50% flowering (PR)* : 91 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.5 t ha⁻¹
- *Grain yield (PR)* : 2.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.2 cm
- *Panicle length (PR)* : 21.4 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 11.3 cm
- *Panicle exertion (PR)* : 15.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 21.00 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to anthracnose

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 267
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 11 × TRL 74/C 57)×ICSB 6]7-5-1-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.5 t ha⁻¹
- *Grain yield (PR)* : 3.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.4 cm
- *Panicle length (PR)* : 24.2 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 8.3 cm
- *Panicle exertion (PR)* : 9.0 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Green
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 32.76 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to anthracnose

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 270
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 11 × TRL 74/C 57)×ICSB 6]12-2-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 74 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.5 t ha-1
- *Grain yield (PR)* : 2.9 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 32.8 cm
- *Panicle length (PR)* : 25.1 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 6.0 cm
- *Panicle exertion (PR)* : 15.0 cm
- *Glume color (R)* : Yellow
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 30.64 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to anthracnose

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 271
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 26 × TRL 74/C 57)×ICSB 88001]1-1-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-4)**
 - *Days to 50% flowering (R)* : 77 days
 - *Days to 50% flowering (PR)* : 87 days
 - *Plant height(R)* : 1.9 m
 - *Plant height (PR)* : 1.3 m
 - *Grain yield (R)* : 2.8 t ha⁻¹
 - *Grain yield (PR)* : 2.8 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 29.2 cm
 - *Panicle length (PR)* : 27.6 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 8.0 cm
 - *Panicle exertion (PR)* : 12.3 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 33.85 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to anthracnose
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/ Summer season
 - *Economic product type* : Forage/Dual purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 277
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 101 × TRL 74/C 57)×PM 17467B]2-5-1-4-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 72 days
- *Days to 50% flowering (PR)* : 79 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.3 t ha⁻¹
- *Grain yield (PR)* : 2.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 31.6 cm
- *Panicle length (PR)* : 27.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 12.7 cm
- *Panicle exertion (PR)* : 18.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 30.33 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to anthracnose

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 278
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 101 × TRL 74/C 57)×PM 17467B]2-5-1-4
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 71 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height (R)* : 1.3 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.8 t ha⁻¹
- *Grain yield (PR)* : 3.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 31.0 cm
- *Panicle length (PR)* : 26.4 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 8.3 cm
- *Panicle exertion (PR)* : 17.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Pearly white
- *1000 – grain weight (PR)* : 26.89 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to anthracnose

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 279
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 101 × TRL 74/C 57)×PM 17467B]3-1-7-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height(R)* : 1.1 m
- *Plant height (PR)* : 0.7 m
- *Grain yield (R)* : 1.3 t ha⁻¹
- *Grain yield (PR)* : 2.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.6 cm
- *Panicle length (PR)* : 18.6 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 0.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 33.10 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to anthracnose

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 282
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 101 × TRL 74/C 57)×PM 17467B]8-4-1-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 71 days
- *Days to 50% flowering (PR)* : 82 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.4 t ha⁻¹
- *Grain yield (PR)* : 2.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.3 cm
- *Panicle length (PR)* : 22.2 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 2.7 cm
- *Panicle exertion (PR)* : 3.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 30.57 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to anthracnose

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 283
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 101 × TRL 74/C 57)×PM 17467B]8-4-1-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 72 days
- *Days to 50% flowering (PR)* : 82 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.5 t ha⁻¹
- *Grain yield (PR)* : 3.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.7 cm
- *Panicle length (PR)* : 23.6 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 0.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 26.59 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to anthracnose

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 284
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 101 × TRL 74/C 57)×PM 17467B]8-4-1-4-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 69 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.6 t ha⁻¹
- *Grain yield (PR)* : 3.0 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.6 cm
- *Panicle length (PR)* : 20.1 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 1.7 cm
- *Panicle exertion (PR)* : 9.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 34.02 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to anthracnose

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 285
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 101 × TRL 74/C 57)×PM 17467B]8-4-1-4-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-4)**
 - *Days to 50% flowering (R)* : 69 days
 - *Days to 50% flowering (PR)* : 76 days
 - *Plant height(R)* : 1.3 m
 - *Plant height (PR)* : 1.0 m
 - *Grain yield (R)* : 2.4 t ha⁻¹
 - *Grain yield (PR)* : 3.2 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 27.3 cm
 - *Panicle length (PR)* : 22.2 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 8.0 cm
 - *Panicle exertion (PR)* : 6.3 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 33.48 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to anthracnose
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 286
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 101 × TRL 74/C 57)×PM 17467B]8-4-1-4-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-4)**
 - *Days to 50% flowering (R)* : 69 days
 - *Days to 50% flowering (PR)* : 78 days
 - *Plant height(R)* : 1.0 m
 - *Plant height (PR)* : 0.9 m
 - *Grain yield (R)* : 2.1 t ha⁻¹
 - *Grain yield (PR)* : 2.8 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 26.7 cm
 - *Panicle length (PR)* : 20.4 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 3.0 cm
 - *Panicle exertion (PR)* : 3.3 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 25.76 g
 - *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to anthracnose
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 287
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 101 × TRL 74/C 57)×PM 17467B]8-4-1-4-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-4)**
 - *Days to 50% flowering (R)* : 69 days
 - *Days to 50% flowering (PR)* : 78 days
 - *Plant height(R)* : 1.1 m
 - *Plant height (PR)* : 0.9 m
 - *Grain yield (R)* : 2.0 t ha⁻¹
 - *Grain yield (PR)* : 2.7 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 27.0 cm
 - *Panicle length (PR)* : 20.1 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 1.7 cm
 - *Panicle exertion (PR)* : 4.0 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 23.71 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to anthracnose
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 288
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [((ICSB 101 × TRL 74/C 57) × PM 17467B) × ICSB 89004]1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-4)**
 - *Days to 50% flowering (R)* : 73 days
 - *Days to 50% flowering (PR)* : 94 days
 - *Plant height(R)* : 2.0 m
 - *Plant height (PR)* : 1.6 m
 - *Grain yield (R)* : 2.5 t ha⁻¹
 - *Grain yield (PR)* : 3.2 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 26.7 cm
 - *Panicle length (PR)* : 20.6 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 14.7 cm
 - *Panicle exertion (PR)* : 15.3 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Yellow
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 28.56 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to anthracnose
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Forage/Dual



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 289
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [((ICSB 101 × TRL 74/C 57) × PM 17467B) × ICSB 89004]2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-4)**
 - *Days to 50% flowering (R)* : 69 days
 - *Days to 50% flowering (PR)* : 80 days
 - *Plant height(R)* : 1.4 m
 - *Plant height (PR)* : 1.1 m
 - *Grain yield (R)* : 2.2 t ha-1
 - *Grain yield (PR)* : 2.0 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 26.9 cm
 - *Panicle length (PR)* : 20.8 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 13.0 cm
 - *Panicle exertion (PR)* : 10.7 cm
 - *Glume color (R)* : Red
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 28.56 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to anthracnose
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Forage/Dual purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 290
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [((ICSB 101 × TRL 74/C 57) × PM 17467B) × ICSB 89004]8-4-1-4
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-4)**
 - *Days to 50% flowering (R)* : 69 days
 - *Days to 50% flowering (PR)* : 75 days
 - *Plant height(R)* : 1.2 m
 - *Plant height (PR)* : 0.9 m
 - *Grain yield (R)* : 2.9 t ha⁻¹
 - *Grain yield (PR)* : 2.6 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 26.8 cm
 - *Panicle length (PR)* : 20.4 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 4.3 cm
 - *Panicle exertion (PR)* : 7.0 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 30.45 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to anthracnose
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/ Summer season
 - *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 291
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [((ICSB 101 × TRL 74/C 57) × ICSB 88001) × ICSB 34]6-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-4)**
 - *Days to 50% flowering (R)* : 69 days
 - *Days to 50% flowering (PR)* : 84 days
 - *Plant height (R)* : 1.6 m
 - *Plant height (PR)* : 1.3 m
 - *Grain yield (R)* : 2.3 t ha⁻¹
 - *Grain yield (PR)* : 4.0 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 29.1 cm
 - *Panicle length (PR)* : 23.7 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 8.0 cm
 - *Panicle exertion (PR)* : 11.7 cm
 - *Glume color (R)* : Red
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 34.28 g
 - *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to anthracnose
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/ Summer season
 - *Economic product type* : Grain purpose



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 292
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 101 × A 2267-2)×PM 17467B]2-2-1-4-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 74 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.0 t ha⁻¹
- *Grain yield (PR)* : 2.9 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 35.0 cm
- *Panicle length (PR)* : 28.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 10.7 cm
- *Panicle exertion (PR)* : 16.3 cm
- *Glume color (R)* : Yellow
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Pearly white
- *1000 – grain weight (PR)* : 29.28 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to anthracnose

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 294
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 101 × A 2267-2)×PM 17467B]8-4-1-4-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 69 days
- *Days to 50% flowering (PR)* : 79 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 3.3 t ha⁻¹
- *Grain yield (PR)* : 4.0 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 31.8 cm
- *Panicle length (PR)* : 28.3 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 20.7 cm
- *Panicle exertion (PR)* : 22.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Pearly white
- *1000 – grain weight (PR)* : 34.09 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to anthracnose

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 295
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(Ind. Syn 422-1B × MR 849) × (BT× 623 ×UCHV 2)×
BB × (SC 108-3 × CSV 1)×E 35-1]2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-4)**
 - *Days to 50% flowering (R)* : 69 days
 - *Days to 50% flowering (PR)* : 75 days
 - *Plant height(R)* : 1.4 m
 - *Plant height (PR)* : 1.1 m
 - *Grain yield (R)* : 3.3 t ha-1
 - *Grain yield (PR)* : 3.1 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 29.1 cm
 - *Panicle length (PR)* : 21.1 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 0.3 cm
 - *Panicle exertion (PR)* : 3.3 cm
 - *Glume color (R)* : Straw
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 40.62 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to anthracnose
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 296
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 11 × PM 1861)9-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 69 days
- *Days to 50% flowering (PR)* : 82 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 3.7 t ha⁻¹
- *Grain yield (PR)* : 3.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 32.0 cm
- *Panicle length (PR)* : 25.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 6.3 cm
- *Panicle exertion (PR)* : 7.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Pearly white
- *1000 – grain weight (PR)* : 35.15 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to leaf blight

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 298
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 11 × TRL 74/C 57)×ICSB 6]12-2-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.3 t ha⁻¹
- *Grain yield (PR)* : 2.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.4 cm
- *Panicle length (PR)* : 23.1 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 7.3 cm
- *Panicle exertion (PR)* : 9.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 25.41 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to leaf blight

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 299
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 26 × PM 1861)4-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.4 t ha⁻¹
- *Grain yield (PR)* : 3.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.1 cm
- *Panicle length (PR)* : 21.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 2.7 cm
- *Panicle exertion (PR)* : 8.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 28.45 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to leaf blight

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 302
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 26 × PM 1861)×(ICSB 22 × ICSB 45) × (ICSB 52 × ICSB 51)]1-3-1-3-6-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-4)**
 - *Days to 50% flowering (R)* : 70 days
 - *Days to 50% flowering (PR)* : 87 days
 - *Plant height(R)* : 1.5 m
 - *Plant height (PR)* : 1.1 m
 - *Grain yield (R)* : 2.8 t ha-1
 - *Grain yield (PR)* : 4.2 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 30.1 cm
 - *Panicle length (PR)* : 25.9 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 2.0 cm
 - *Panicle exertion (PR)* : 8.3 cm
 - *Glume color (R)* : Straw
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 34.08 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to leaf blight
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/ Summer season
 - *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 312
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 101 × TRL 74/C 57)×PM 17467B]6-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 67 days
- *Days to 50% flowering (PR)* : 73 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 2.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.4 cm
- *Panicle length (PR)* : 23.1 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 5.7 cm
- *Panicle exertion (PR)* : 6.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 24.81 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to leaf blight

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 313
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 101 × TRL 74/C 57)×PM 17467B]8-4-1-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-4)**
 - *Days to 50% flowering (R)* : 70 days
 - *Days to 50% flowering (PR)* : 80 days
 - *Plant height(R)* : 1.2 m
 - *Plant height (PR)* : 1.0 m
 - *Grain yield (R)* : 2.4 t ha⁻¹
 - *Grain yield (PR)* : 2.7 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 25.2 cm
 - *Panicle length (PR)* : 19.6 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 4.7 cm
 - *Panicle exertion (PR)* : 5.0 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 26.65 g
 - *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to leaf blight
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 314
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 101 × TRL 74/C 57)×PM 17467B]8-4-1-3-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-4)**
 - *Days to 50% flowering (R)* : 70 days
 - *Days to 50% flowering (PR)* : 81 days
 - *Plant height(R)* : 1.2 m
 - *Plant height (PR)* : 1.0 m
 - *Grain yield (R)* : 2.8 t ha⁻¹
 - *Grain yield (PR)* : 2.2 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 27.4 cm
 - *Panicle length (PR)* : 20.3 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 1.7 cm
 - *Panicle exertion (PR)* : 5.3 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 26.28 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to leaf blight
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 315
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 101 × TRL 74/C 57)×PM 17467B]8-4-1-4-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-4)**
 - *Days to 50% flowering (R)* : 68 days
 - *Days to 50% flowering (PR)* : 78 days
 - *Plant height(R)* : 1.1 m
 - *Plant height (PR)* : 0.9 m
 - *Grain yield (R)* : 2.2 t ha⁻¹
 - *Grain yield (PR)* : 2.1 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 27.9 cm
 - *Panicle length (PR)* : 20.4 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 3.0 cm
 - *Panicle exertion (PR)* : 5.7 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 24.14 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to leaf blight
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 316
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 101 × TRL 74/C 57)×PM 17467B]8-4-1-4-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-4)**
 - *Days to 50% flowering (R)* : 72 days
 - *Days to 50% flowering (PR)* : 82 days
 - *Plant height(R)* : 1.2 m
 - *Plant height (PR)* : 0.9 m
 - *Grain yield (R)* : 3.3 t ha⁻¹
 - *Grain yield (PR)* : 2.4 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 28.4 cm
 - *Panicle length (PR)* : 22.7 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 1.0 cm
 - *Panicle exertion (PR)* : 2.7 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 29.90 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to leaf blight
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 317
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 101 × TRL 74/C 57)×PM 17467B]8-4-1-4-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-4)**
 - *Days to 50% flowering (R)* : 68 days
 - *Days to 50% flowering (PR)* : 77 days
 - *Plant height(R)* : 1.1 m
 - *Plant height (PR)* : 0.9 m
 - *Grain yield (R)* : 2.5 t ha⁻¹
 - *Grain yield (PR)* : 2.7 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 28.0 cm
 - *Panicle length (PR)* : 21.1 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 3.0 cm
 - *Panicle exertion (PR)* : 4.7 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 31.95 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to leaf blight
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 320
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(IS 23493 × SPV 351)×MR 940]8-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 77 days
- *Days to 50% flowering (PR)* : 86 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 2.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.9 cm
- *Panicle length (PR)* : 23.4 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 8.7 cm
- *Panicle exertion (PR)* : 14.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 35.01 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to leaf blight

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 322
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (IS 29016 × ICSB 26)1-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.4 t ha⁻¹
- *Grain yield (PR)* : 3.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.7 cm
- *Panicle length (PR)* : 18.9 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 7.7 cm
- *Panicle exertion (PR)* : 1.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.39 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to leaf blight

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 330
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 11 × PM 1861)8-2-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 69 days
- *Days to 50% flowering (PR)* : 82 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 2.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.6 cm
- *Panicle length (PR)* : 19.4 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 4.3 cm
- *Panicle exertion (PR)* : 9.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Pearly white
- *1000 – grain weight (PR)* : 23.74 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to rust

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 331
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 26 × PM 1861)4-1-2-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 71 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.6 t ha⁻¹
- *Grain yield (PR)* : 2.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 22.1 cm
- *Panicle length (PR)* : 22.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 10.7 cm
- *Panicle exertion (PR)* : 11.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 37.77 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to rust

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 332
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 26 × PM 1861)4-1-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 74 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.3 t ha⁻¹
- *Grain yield (PR)* : 3.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.6 cm
- *Panicle length (PR)* : 23.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 10.3 cm
- *Panicle exertion (PR)* : 15.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 31.89 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to rust

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 335
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 26 × PM 1861)5-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 69 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 2.9 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.1 cm
- *Panicle length (PR)* : 23.8 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 3.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.68 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to rust

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 337
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 51 × PM 1861)2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 66 days
- *Days to 50% flowering (PR)* : 76 days
- *Plant height(R)* : 1.1 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 3.1 t ha⁻¹
- *Grain yield (PR)* : 2.1 t ha⁻¹
- *Panicle shape (R)* : Pyramidal
- *Panicle shape (PR)* : Pyramidal
- *Panicle length (R)* : 27.4 cm
- *Panicle length (PR)* : 24.9 cm
- *Panicle type (R)* : Loose
- *Panicle type (PR)* : Loose
- *Panicle exertion (R)* : 4.3 cm
- *Panicle exertion (PR)* : 7.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 20.54 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to rust

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 338
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 51 × PM 1861)4-1-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 76 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 1.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 34.8 cm
- *Panicle length (PR)* : 26.2 cm
- *Panicle type (R)* : Loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 4.3 cm
- *Panicle exertion (PR)* : 2.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 31.59 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to rust

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 341
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 101 × TRL 74/C 57)×PM 17467B]2-5-1-3-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-4)**
 - *Days to 50% flowering (R)* : 75 days
 - *Days to 50% flowering (PR)* : 77 days
 - *Plant height(R)* : 2.2 m
 - *Plant height (PR)* : 1.5 m
 - *Grain yield (R)* : 3.8 t ha⁻¹
 - *Grain yield (PR)* : 4.7 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 33.2 cm
 - *Panicle length (PR)* : 27.7 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 17.0 cm
 - *Panicle exertion (PR)* : 23.7 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 35.66 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to rust
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Forage/Dual
purpose hybrid
parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 344
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 101 × TRL 74/C 57)×PM 17467B]8-4-1-3-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-4)**
 - *Days to 50% flowering (R)* : 70 days
 - *Days to 50% flowering (PR)* : 80 days
 - *Plant height(R)* : 1.2 m
 - *Plant height (PR)* : 1.1 m
 - *Grain yield (R)* : 2.3 t ha⁻¹
 - *Grain yield (PR)* : 3.0 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 25.9 cm
 - *Panicle length (PR)* : 22.0 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 4.7 cm
 - *Panicle exertion (PR)* : 4.7 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 25.11 g
 - *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to rust
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 346
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 101 × TRL 74/C 57)×PM 17467B]8-4-1-4-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-4)**
 - *Days to 50% flowering (R)* : 67 days
 - *Days to 50% flowering (PR)* : 77 days
 - *Plant height(R)* : 1.1 m
 - *Plant height (PR)* : 0.9 m
 - *Grain yield (R)* : 2.4 t ha⁻¹
 - *Grain yield (PR)* : 2.8 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 27.7 cm
 - *Panicle length (PR)* : 22.0 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 1.3 cm
 - *Panicle exertion (PR)* : 5.0 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 25.12 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to rust
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 347
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 101 × TRL 74/C 57)×PM 17467B]8-4-1-4-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-4)**
 - *Days to 50% flowering (R)* : 68 days
 - *Days to 50% flowering (PR)* : 77 days
 - *Plant height(R)* : 1.1 m
 - *Plant height (PR)* : 0.9 m
 - *Grain yield (R)* : 2.2 t ha⁻¹
 - *Grain yield (PR)* : 2.5 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 27.8 cm
 - *Panicle length (PR)* : 20.1 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 2.7 cm
 - *Panicle exertion (PR)* : 8.7 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 28.09 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to rust
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 349
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [((IS 18417 × ICSB 11)×ICSB 45)×ICSB 30]1-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-4)**
 - *Days to 50% flowering (R)* : 65 days
 - *Days to 50% flowering (PR)* : 82 days
 - *Plant height(R)* : 1.8 m
 - *Plant height (PR)* : 1.4 m
 - *Grain yield (R)* : 1.8 t ha⁻¹
 - *Grain yield (PR)* : 2.1 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 31.0 cm
 - *Panicle length (PR)* : 23.8 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 19.0 cm
 - *Panicle exertion (PR)* : 14.0 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Purple
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 24.95 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to rust
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Forage/Dual purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 352
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 11 × IS 2815)2-1-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 64 days
- *Days to 50% flowering (PR)* : 85 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.6 m
- *Grain yield (R)* : 3.4 t ha⁻¹
- *Grain yield (PR)* : 3.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.9 cm
- *Panicle length (PR)* : 24.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 22.0 cm
- *Panicle exertion (PR)* : 21.7 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Pearly white
- *1000 – grain weight (PR)* : 29.46 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 354
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 11 × IS 2815)4-1-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 64 days
- *Days to 50% flowering (PR)* : 75 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.5 m
- *Grain yield (R)* : 2.5 t ha⁻¹
- *Grain yield (PR)* : 3.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 31.1 cm
- *Panicle length (PR)* : 20.8 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 19.3 cm
- *Panicle exertion (PR)* : 25.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 34.85 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 356
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 11 × IS 2815)16-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 64 days
- *Days to 50% flowering (PR)* : 74 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 2.6 t ha⁻¹
- *Grain yield (PR)* : 2.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.4 cm
- *Panicle length (PR)* : 21.8 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 11.3 cm
- *Panicle exertion (PR)* : 14.7 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 33.76 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 357
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 11 × IS 2815)16-2-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 65 days
- *Days to 50% flowering (PR)* : 74 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.5 m
- *Grain yield (R)* : 2.4 t ha⁻¹
- *Grain yield (PR)* : 3.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.7 cm
- *Panicle length (PR)* : 23.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 8.7 cm
- *Panicle exertion (PR)* : 16.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 33.26 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 359
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 11 × IS 2815)20-3-2-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 63 days
- *Days to 50% flowering (PR)* : 76 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.6 t ha⁻¹
- *Grain yield (PR)* : 1.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- * *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 30.1 cm
- *Panicle length (PR)* : 21.6 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 6.0 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Light red
- *1000 – grain weight (PR)* : 33.13 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

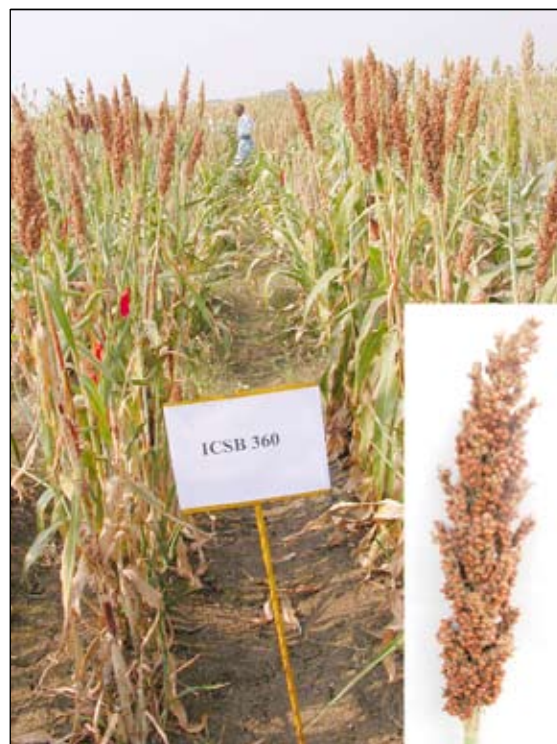
1. **Designated number** : ICSA/B 360
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 11 × IS 2815)20-3-2-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 65 days
- *Days to 50% flowering (PR)* : 72 days
- *Plant height(R)* : 2.0 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 1.6 t ha⁻¹
- *Grain yield (PR)* : 1.0 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 32.7 cm
- *Panicle length (PR)* : 22.9 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 11.0 cm
- *Panicle exertion (PR)* : 13.3 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Red
- *1000 – grain weight (PR)* : 32.83 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 365
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 11 × IS 2815)25-2-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 66 days
- *Days to 50% flowering (PR)* : 75 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.5 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 3.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 31.8 cm
- *Panicle length (PR)* : 21.8 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 10.0 cm
- *Panicle exertion (PR)* : 20.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 31.86 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 372
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 11 × IS 2815)30-1-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 61 days
- *Days to 50% flowering (PR)* : 74 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 2.3 t ha⁻¹
- *Grain yield (PR)* : 3.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.7 cm
- *Panicle length (PR)* : 17.4 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 15.3 cm
- *Panicle exertion (PR)* : 22.0 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Light red
- *1000 – grain weight (PR)* : 33.25 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 377
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 11 × IS 2815)48-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 63 days
- *Days to 50% flowering (PR)* : 79 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 3.3 t ha⁻¹
- *Grain yield (PR)* : 4.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.8 cm
- *Panicle length (PR)* : 25.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 9.0 cm
- *Panicle exertion (PR)* : 16.3 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Light brown
- *1000 – grain weight (PR)* : 34.20 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 387
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 37 × IS 21599)4-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 66 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.5 m
- *Grain yield (R)* : 3.3 t ha⁻¹
- *Grain yield (PR)* : 3.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 30.7 cm
- *Panicle length (PR)* : 23.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 12.7 cm
- *Panicle exertion (PR)* : 19.0 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Light brown
- *1000 – grain weight (PR)* : 29.48 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 389
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 37 × IS 21599)14-1-2-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 67 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.6 m
- *Grain yield (R)* : 3.3 t ha⁻¹
- *Grain yield (PR)* : 2.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.9 cm
- *Panicle length (PR)* : 23.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 17.3 cm
- *Panicle exertion (PR)* : 22.7 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Light red
- *1000 – grain weight (PR)* : 36.00 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/dual
purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 395
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 37 × IS 10475B)11-1-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 73 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 3.4 t ha⁻¹
- *Grain yield (PR)* : 1.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.6 cm
- *Panicle length (PR)* : 20.8 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 2.7 cm
- *Panicle exertion (PR)* : 12.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Light brown
- *1000 – grain weight (PR)* : 33.24 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 397
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 37 × IS 10475B)12-2-1-1-1-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 74 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.2 t ha⁻¹
- *Grain yield (PR)* : 0.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.0 cm
- *Panicle length (PR)* : 25.2 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 28.3 cm
- *Panicle exertion (PR)* : 22.0 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Green
- *Grain color (PR)* : Red
- *1000 – grain weight (PR)* : 30.46 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 398
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 37 × IS 10475B)12-2-1-1-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 72 days
- *Days to 50% flowering (PR)* : 82 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 2.4 t ha⁻¹
- *Grain yield (PR)* : 2.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 30.7 cm
- *Panicle length (PR)* : 25.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 14.3 cm
- *Panicle exertion (PR)* : 7.7 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Green
- *Grain color (PR)* : Light red
- *1000 – grain weight (PR)* : 29.97 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 399
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 37 × IS 2501)×ICSB 11]1-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 64 days
- *Days to 50% flowering (PR)* : 72 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 2.6 t ha⁻¹
- *Grain yield (PR)* : 1.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.9 cm
- *Panicle length (PR)* : 20.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 14.3 cm
- *Panicle exertion (PR)* : 17.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 34.06 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 407
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (IS 3436 × PQ 35B)5-1-1-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-4)

- *Days to 50% flowering (R)* : 69 days
- *Days to 50% flowering (PR)* : 92 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.6 m
- *Grain yield (R)* : 2.4 t ha⁻¹
- *Grain yield (PR)* : 2.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.7 cm
- *Panicle length (PR)* : 24.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 16.3 cm
- *Panicle exertion (PR)* : 8.0 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Light red
- *1000 – grain weight (PR)* : 32.25 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to grain mold

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 209
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 37 × SP 36257)5-2-4-2-1×
296 B × (296 B × QL 3)27-2-2-6-2-2]-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-5)**
 - *Days to 50% flowering (R)* : 78 days
 - *Days to 50% flowering (PR)* : 86 days
 - *Plant height(R)* : 1.8 m
 - *Plant height (PR)* : 1.3 m
 - *Grain yield (R)* : 3.2 t ha⁻¹
 - *Grain yield (PR)* : 2.0 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 31.1 cm
 - *Panicle length (PR)* : 26.9 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 0.0 cm
 - *Panicle exertion (PR)* : 1.8 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Purple
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 32.91 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to downy mildew
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/ Summer season
 - *Economic product type* : Forage/Dual purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 211
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 37 × IS 18757)3-1-1-2-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-5)

- *Days to 50% flowering (R)* : 82 days
- *Days to 50% flowering (PR)* : 96 days
- *Plant height(R)* : 1.0 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 1.4 t ha⁻¹
- *Grain yield (PR)* : 3.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.6 cm
- *Panicle length (PR)* : 29.2 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.2 cm
- *Panicle exertion (PR)* : 1.5 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Light red
- *1000 – grain weight (PR)* : 24.26 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 212
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 51 × IS 18757)2-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-5)

- *Days to 50% flowering (R)* : 77 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.2 t ha⁻¹
- *Grain yield (PR)* : 2.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.8 cm
- *Panicle length (PR)* : 21.3 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 9.8 cm
- *Panicle exertion (PR)* : 10.7 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Light red
- *1000 – grain weight (PR)* : 23.20 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 214
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 101 × IS 18757)×ICSB 6]9-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-5)

- *Days to 50% flowering (R)* : 75 days
- *Days to 50% flowering (PR)* : 84 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 3.5 t ha⁻¹
- *Grain yield (PR)* : 3.0 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 32.2 cm
- *Panicle length (PR)* : 22.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.9 cm
- *Panicle exertion (PR)* : 1.8 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Light red
- *1000 – grain weight (PR)* : 23.18 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 219
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (296 B × QL 3)27-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-5)

- *Days to 50% flowering (R)* : 81 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 1.3 t ha⁻¹
- *Grain yield (PR)* : 2.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 31.0 cm
- *Panicle length (PR)* : 25.3 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 4.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 23.81 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 221
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]27-2-12-3-6-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-5)

- *Days to 50% flowering (R)* : 81 days
- *Days to 50% flowering (PR)* : 90 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.0 t ha⁻¹
- *Grain yield (PR)* : 3.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.7 cm
- *Panicle length (PR)* : 22.4 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 2.9 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.13 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 232
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]27-2-1-7-1-2-3-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-5)

- *Days to 50% flowering (R)* : 80 days
- *Days to 50% flowering (PR)* : 93 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.3 t ha⁻¹
- *Grain yield (PR)* : 2.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 33.1 cm
- *Panicle length (PR)* : 24.1 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.6 cm
- *Panicle exertion (PR)* : 5.1 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.58 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 234
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]27-2-1-7-2-2-4-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-5)

- *Days to 50% flowering (R)* : 81 days
- *Days to 50% flowering (PR)* : 88 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.4 t ha⁻¹
- *Grain yield (PR)* : 3.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.8 cm
- *Panicle length (PR)* : 25.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 1.6 cm
- *Panicle exertion (PR)* : 8.1 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.58 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 238
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]27-2-1-7-2-8-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : **Disease resistance**

6. Salient characteristics (Refer Annexure I-5)

- *Days to 50% flowering (R)* : 81 days
- *Days to 50% flowering (PR)* : 88 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 1.8 t ha⁻¹
- *Grain yield (PR)* : 3.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 36.3 cm
- *Panicle length (PR)* : 27.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 2.9 cm
- *Panicle exertion (PR)* : 10.9 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Green
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.05 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 239
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]27-2-1-7-2-10-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-5)

- *Days to 50% flowering (R)* : 80 days
- *Days to 50% flowering (PR)* : 91 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 3.0 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 30.9 cm
- *Panicle length (PR)* : 25.6 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.4 cm
- *Panicle exertion (PR)* : 7.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.79 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 240
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]27-2-2-6-2-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-5)

- *Days to 50% flowering (R)* : 78 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 3.0 t ha⁻¹
- *Grain yield (PR)* : 3.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 35.7 cm
- *Panicle length (PR)* : 28.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 1.0 cm
- *Panicle exertion (PR)* : 8.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 31.57 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 241
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]27-2-2-6-3-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-5)

- *Days to 50% flowering (R)* : 81 days
- *Days to 50% flowering (PR)* : 86 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.6 t ha⁻¹
- *Grain yield (PR)* : 2.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 33.3 cm
- *Panicle length (PR)* : 25.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 2.1 cm
- *Panicle exertion (PR)* : 11.2 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.98 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 242
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]27-2-2-6-3-2-1-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-5)

- *Days to 50% flowering (R)* : 80 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 3.0 t ha⁻¹
- *Grain yield (PR)* : 2.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 33.4 cm
- *Panicle length (PR)* : 24.8 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 3.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.94 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 246
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]28-3-3-2-3-5-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-5)

- *Days to 50% flowering (R)* : 77 days
- *Days to 50% flowering (PR)* : 87 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.9 t ha⁻¹
- *Grain yield (PR)* : 2.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 34.4 cm
- *Panicle length (PR)* : 25.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 6.3 cm
- *Panicle exertion (PR)* : 8.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 31.89 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 248
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]28-3-3-3-4-1-5
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-5)

- *Days to 50% flowering (R)* : 79 days
- *Days to 50% flowering (PR)* : 89 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.3 t ha⁻¹
- *Grain yield (PR)* : 3.0 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 34.0 cm
- *Panicle length (PR)* : 25.3 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 2.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 31.50 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 257
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]28-3-6-11-1-4-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-5)

- *Days to 50% flowering (R)* : 78 days
- *Days to 50% flowering (PR)* : 92 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.2 t ha⁻¹
- *Grain yield (PR)* : 2.9 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 34.3 cm
- *Panicle length (PR)* : 26.8 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 3.6 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.84 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 258
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]28-3-10-1-2-3-1-4
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-5)

- *Days to 50% flowering (R)* : 78 days
- *Days to 50% flowering (PR)* : 90 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 3.0 t ha⁻¹
- *Grain yield (PR)* : 2.0 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 32.1 cm
- *Panicle length (PR)* : 26.0 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 3.9 cm
- *Panicle exertion (PR)* : 8.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 33.71 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 259
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×(296 B × QL 3)]29-6-7-2-4-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-5)

- *Days to 50% flowering (R)* : 82 days
- *Days to 50% flowering (PR)* : 98 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 1.8 t ha⁻¹
- *Grain yield (PR)* : 3.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 34.7 cm
- *Panicle length (PR)* : 25.8 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 1.2 cm
- *Panicle exertion (PR)* : 4.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 27.10 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to downy mildew

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 306
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 26 × PM 1861)×(ICSB 22 × ICSB 45) × (ICSB 52 × ICSB 51)]1-3-7-3-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-5)**
 - *Days to 50% flowering (R)* : 79 days
 - *Days to 50% flowering (PR)* : 94 days
 - *Plant height(R)* : 1.8 m
 - *Plant height (PR)* : 1.4 m
 - *Grain yield (R)* : 2.9 t ha⁻¹
 - *Grain yield (PR)* : 4.3 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 30.4 cm
 - *Panicle length (PR)* : 26.9 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 1.4 cm
 - *Panicle exertion (PR)* : 7.9 cm
 - *Glume color (R)* : Straw
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 32.98 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to leaf blight
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/ Summer season
 - *Economic product type* : Forage/Dual purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 307
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 26 × PM 1861)×(ICSB 22 × ICSB 45) × (ICSB 52 × ICSB 51)]1-3-12-3-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-5)**
 - *Days to 50% flowering (R)* : 81 days
 - *Days to 50% flowering (PR)* : 98 days
 - *Plant height(R)* : 1.8 m
 - *Plant height (PR)* : 1.3 m
 - *Grain yield (R)* : 2.8 t ha-1
 - *Grain yield (PR)* : 2.5 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 28.3 cm
 - *Panicle length (PR)* : 26.1 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 3.2 cm
 - *Panicle exertion (PR)* : 9.3 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 28.98 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to leaf blight
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Forage/Dual purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 308
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 26 × PM 1861)×(ICSB 22 × ICSB 45) × (ICSB 52 × ICSB 51)] 1-3-12-2-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance
6. **Salient characteristics (Refer Annexure I-5)**
 - *Days to 50% flowering (R)* : 79 days
 - *Days to 50% flowering (PR)* : 87 days
 - *Plant height(R)* : 1.6 m
 - *Plant height (PR)* : 1.2 m
 - *Grain yield (R)* : 4.0 t ha-1
 - *Grain yield (PR)* : 5.1 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 27.2 cm
 - *Panicle length (PR)* : 23.2 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 1.4 cm
 - *Panicle exertion (PR)* : 5.0 cm
 - *Glume color (R)* : Brown
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 24.38 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to leaf blight
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 309
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 70 × PM 1861)5-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-5)

- *Days to 50% flowering (R)* : 77 days
- *Days to 50% flowering (PR)* : 90 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 4.2 t ha-1
- *Grain yield (PR)* : 4.1 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.8 cm
- *Panicle length (PR)* : 21.7 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 4.1 cm
- *Panicle exertion (PR)* : 7.8 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 37.06 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to leaf blight

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 310
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 70 × PM 1861)10-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-5)

- *Days to 50% flowering (R)* : 80 days
- *Days to 50% flowering (PR)* : 85 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 3.1 t ha-1
- *Grain yield (PR)* : 4.2 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.0 cm
- *Panicle length (PR)* : 20.8 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 1.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 32.10 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to leaf blight

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 319
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 102 × ICSV 700)5-4-1-1-2-4
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Disease resistance

6. Salient characteristics (Refer Annexure I-5)

- *Days to 50% flowering (R)* : 81 days
- *Days to 50% flowering (PR)* : 91 days
- *Plant height(R)* : 2.1 m
- *Plant height (PR)* : 1.7 m
- *Grain yield (R)* : 2.2 t ha⁻¹
- *Grain yield (PR)* : 2.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.2 cm
- *Panicle length (PR)* : 25.3 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 9.8 cm
- *Panicle exertion (PR)* : 21.9 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 38.14 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to leaf blight

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 567
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 3 × SAR 35)57-1-2-1-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-6)

- *Days to 50% flowering (R)* : 65 days
- *Days to 50% flowering (PR)* : 73 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.9 t ha⁻¹
- *Grain yield (PR)* : 1.9 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 30.2 cm
- *Panicle length (PR)* : 23.9 cm
- *Panicle type (R)* : Loose
- *Panicle type (PR)* : Loose
- *Panicle exertion (R)* : 9.3 cm
- *Panicle exertion (PR)* : 14.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 27.15 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to Striga

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 568
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 3 × SAR 35)×ICSB 3]5-2-2-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-6)

- *Days to 50% flowering (R)* : 61 days
- *Days to 50% flowering (PR)* : 74 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.8 t ha⁻¹
- *Grain yield (PR)* : 2.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 31.8 cm
- *Panicle length (PR)* : 24.4 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 17.0 cm
- *Panicle exertion (PR)* : 15.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 30.45 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to Striga

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 569
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 3 × SAR 35)×ICSB 3]44-2-1-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant
6. **Salient characteristics (Refer Annexure I-6)**
 - *Days to 50% flowering (R)* : 75 days
 - *Days to 50% flowering (PR)* : 93 days
 - *Plant height(R)* : 1.6 m
 - *Plant height (PR)* : 1.1 m
 - *Grain yield (R)* : 3.9 t ha⁻¹
 - *Grain yield (PR)* : 3.6 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 30.7 cm
 - *Panicle length (PR)* : 23.1 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 11.0 cm
 - *Panicle exertion (PR)* : 13.3 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 30.90 g
 - *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to Striga
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 571
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 11 × SAR 1)4-1-1-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-6)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 79 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.0 t ha⁻¹
- *Grain yield (PR)* : 2.0 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.1 cm
- *Panicle length (PR)* : 19.6 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 5.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 28.48 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to Striga

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 572
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 11 × SAR 1)4-1-2-1-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-6)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 76 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 3.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.9 cm
- *Panicle length (PR)* : 23.0 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 5.0 cm
- *Panicle exertion (PR)* : 9.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 30.20 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to Striga

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 584
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 26 × SAR 16)10-2-1-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-6)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 88 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.2 t ha⁻¹
- *Grain yield (PR)* : 2.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 21.6 cm
- *Panicle length (PR)* : 17.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 5.3 cm
- *Panicle exertion (PR)* : 12.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 27.43 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to Striga

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 594
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 54 × SAR 35)44-3-2-2-1-2-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-6)

- *Days to 50% flowering (R)* : 66 days
- *Days to 50% flowering (PR)* : 84 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.1 t ha⁻¹
- *Grain yield (PR)* : 2.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.7 cm
- *Panicle length (PR)* : 22.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 9.7 cm
- *Panicle exertion (PR)* : 12.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 25.45 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to Striga

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 598
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 54 × SAR 35)44-3-2-1-4-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-6)

- *Days to 50% flowering (R)* : 61 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 1.6 t ha⁻¹
- *Grain yield (PR)* : 2.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 23.8 cm
- *Panicle length (PR)* : 21.3 cm
- *Panicle type (R)* : Loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 15.3 cm
- *Panicle exertion (PR)* : 10.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 31.71 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to Striga

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 599
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 101 × SAR 16)6-2-1-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-6)

- *Days to 50% flowering (R)* : 65 days
- *Days to 50% flowering (PR)* : 73 days
- *Plant height (R)* : 1.3 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.8 t ha⁻¹
- *Grain yield (PR)* : 2.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.1 cm
- *Panicle length (PR)* : 19.8 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 1.7 cm
- *Panicle exertion (PR)* : 10.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 28.82 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to Striga

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 671
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : IS 804-2B
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-6)

- *Days to 50% flowering (R)* : 59 days
- *Days to 50% flowering (PR)* : 75 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 1.1 t ha⁻¹
- *Grain yield (PR)* : 2.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 21.3 cm
- *Panicle length (PR)* : 22.6 cm
- *Panicle type (R)* : Loose
- *Panicle type (PR)* : Loose
- *Panicle exertion (R)* : 16.7 cm
- *Panicle exertion (PR)* : 17.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 27.74 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 682
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 37 × IS 21599)12-1-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-6)

- *Days to 50% flowering (R)* : 63 days
- *Days to 50% flowering (PR)* : 76 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.8 t ha⁻¹
- *Grain yield (PR)* : 1.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 31.7 cm
- *Panicle length (PR)* : 27.1 cm
- *Panicle type (R)* : Loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 8.0 cm
- *Panicle exertion (PR)* : 13.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 25.77 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to stay-green

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 566
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 3 × SAR 35)26-1-2-2-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-7)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 76 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 3.2 t ha⁻¹
- *Grain yield (PR)* : 2.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.1 cm
- *Panicle length (PR)* : 24.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 5.7 cm
- *Panicle exertion (PR)* : 1.0 cm
- *Glume color (R)* : Yellow
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.36 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to Striga

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 573
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 11 × SAR 1)4-1-2-1-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-7)

- *Days to 50% flowering (R)* : 72 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 3.1 t ha⁻¹
- *Grain yield (PR)* : 2.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.7 cm
- *Panicle length (PR)* : 21.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 1.3 cm
- *Panicle exertion (PR)* : 6.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Purple
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 29.97 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to Striga

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 574
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [((ICSB 11 × SAR 1)×ICSB 9)×ICSB 101]1-2-3-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant
6. **Salient characteristics (Refer Annexure I-7)**
 - *Days to 50% flowering (R)* : 68 days
 - *Days to 50% flowering (PR)* : 93 days
 - *Plant height(R)* : 1.6 m
 - *Plant height (PR)* : 1.2 m
 - *Grain yield (R)* : 3.0 t ha⁻¹
 - *Grain yield (PR)* : 2.1 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 29.7 cm
 - *Panicle length (PR)* : 21.0 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 10.3 cm
 - *Panicle exertion (PR)* : 15.7 cm
 - *Glume color (R)* : Straw
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 24.13 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to Striga
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 575
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [((ICSB 11 × SAR 1)×ICSB 9)×ICSB 101]1-2-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant
6. **Salient characteristics (Refer Annexure I-7)**
 - *Days to 50% flowering (R)* : 66 days
 - *Days to 50% flowering (PR)* : 84 days
 - *Plant height(R)* : 1.4 m
 - *Plant height (PR)* : 1.1 m
 - *Grain yield (R)* : 2.8 t ha⁻¹
 - *Grain yield (PR)* : 2.8 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 26.3 cm
 - *Panicle length (PR)* : 18.1 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 8.0 cm
 - *Panicle exertion (PR)* : 10.3 cm
 - *Glume color (R)* : Straw
 - *Glume color (PR)* : Green
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 32.77 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to Striga
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/ Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 580
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 26 × SAR 16)2-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-7)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 85 days
- *Plant height(R)* : 1.1 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 1.7 t ha-1
- *Grain yield (PR)* : 1.9 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 22.7 cm
- *Panicle length (PR)* : 19.2 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 10.7 cm
- *Panicle exertion (PR)* : 14.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 24.19 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to Striga

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 581
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 26 × SAR 16)4-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-7)

- *Days to 50% flowering (R)* : 75 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 1.1 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 1.7 t ha⁻¹
- *Grain yield (PR)* : 1.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 30.3 cm
- *Panicle length (PR)* : 21.8 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 6.7 cm
- *Panicle exertion (PR)* : 10.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 22.73 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to Striga

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 582
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 26 × SAR 16)4-1-1-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-7)

- *Days to 50% flowering (R)* : 78 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 1.7 t ha⁻¹
- *Grain yield (PR)* : 1.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 30.0 cm
- *Panicle length (PR)* : 22.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 7.3 cm
- *Panicle exertion (PR)* : 8.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 25.73 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to Striga

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 585
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 34 × SAR 35)×SAR 35]18-1-1-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-7)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 79 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 2.6 t ha⁻¹
- *Grain yield (PR)* : 2.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.3 cm
- *Panicle length (PR)* : 22.9 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 10.7 cm
- *Panicle exertion (PR)* : 7.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 32.26 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to Striga

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 586
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 34 × SAR 35)×SAR 35]18-1-1-2-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant
6. **Salient characteristics (Refer Annexure I-7)**
 - *Days to 50% flowering (R)* : 64 days
 - *Days to 50% flowering (PR)* : 90 days
 - *Plant height(R)* : 1.0 m
 - *Plant height (PR)* : 0.9 m
 - *Grain yield (R)* : 1.1 t ha⁻¹
 - *Grain yield (PR)* : 0.8 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 26.3 cm
 - *Panicle length (PR)* : 26.8 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 5.0 cm
 - *Panicle exertion (PR)* : 5.7 cm
 - *Glume color (R)* : Straw
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 24.79 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to Striga
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 588
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 34 × SAR 35)×SAR 35]18-1-1-2-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant
6. **Salient characteristics (Refer Annexure I-7)**
 - *Days to 50% flowering (R)* : 70 days
 - *Days to 50% flowering (PR)* : 76 days
 - *Plant height(R)* : 1.0 m
 - *Plant height (PR)* : 0.8 m
 - *Grain yield (R)* : 2.1 t ha⁻¹
 - *Grain yield (PR)* : 2.4 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 26.4cm
 - *Panicle length (PR)* : 22.0 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 7.7 cm
 - *Panicle exertion (PR)* : 9.7 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Purple
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 31.38 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to Striga
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 590
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 37 × SAR 34)7-1-2-5
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-7)

- *Days to 50% flowering (R)* : 80 days
- *Days to 50% flowering (PR)* : 92 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 2.2 t ha⁻¹
- *Grain yield (PR)* : 2.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.3 cm
- *Panicle length (PR)* : 24.6 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 18.0 cm
- *Panicle exertion (PR)* : 19.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 26.74 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to Striga

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 595
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 54 × SAR 35)44-3-2-2-3-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-7)

- *Days to 50% flowering (R)* : 66 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.9 t ha⁻¹
- *Grain yield (PR)* : 2.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.8 cm
- *Panicle length (PR)* : 21.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 17.0 cm
- *Panicle exertion (PR)* : 19.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Cream
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 32.31 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to Striga

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 597
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 54 × SAR 35)44-3-2-1-3-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-7)

- *Days to 50% flowering (R)* : 69 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.9 t ha⁻¹
- *Grain yield (PR)* : 3.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.0 cm
- *Panicle length (PR)* : 21.8 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 4.7 cm
- *Panicle exertion (PR)* : 8.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Purple
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 30.24 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to Striga

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 600
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (BT× 622 × 2219B)-2-1-2-1-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-7)

- *Days to 50% flowering (R)* : 69 days
- *Days to 50% flowering (PR)* : 82 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.2 t ha⁻¹
- *Grain yield (PR)* : 3.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 33.1 cm
- *Panicle length (PR)* : 23.9 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 5.0 cm
- *Panicle exertion (PR)* : 10.3 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Black
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 31.62 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to acid soil tolerance

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 601
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(BT× 623 × MR 862)×B lines bulk]-5-1-3-5
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant
6. **Salient characteristics (Refer Annexure I-7)**
 - *Days to 50% flowering (R)* : 76 days
 - *Days to 50% flowering (PR)* : 84 days
 - *Plant height(R)* : 1.4 m
 - *Plant height (PR)* : 1.1 m
 - *Grain yield (R)* : 4.1 t ha⁻¹
 - *Grain yield (PR)* : 2.9 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 34.4 cm
 - *Panicle length (PR)* : 26.0 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 13.7 cm
 - *Panicle exertion (PR)* : 20.7 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Purple
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 33.59 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to acid soil tolerance
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/ Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 602
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 3 × ICSR 72) × ICSB 11]-9-4-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-7)

- *Days to 50% flowering (R)* : 69 days
- *Days to 50% flowering (PR)* : 94 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 3.6 t ha⁻¹
- *Grain yield (PR)* : 3.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 30.8 cm
- *Panicle length (PR)* : 28.2 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Loose
- *Panicle exertion (R)* : 5.0 cm
- *Panicle exertion (PR)* : 7.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 29.24 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to acid soil tolerance

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 603
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 11 × PM 17500-2-1)×PM 17467B]1-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant
6. **Salient characteristics (Refer Annexure I-7)**
 - *Days to 50% flowering (R)* : 75 days
 - *Days to 50% flowering (PR)* : 94 days
 - *Plant height(R)* : 1.6 m
 - *Plant height (PR)* : 1.2 m
 - *Grain yield (R)* : 3.1 t ha⁻¹
 - *Grain yield (PR)* : 4.2 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 26.3 cm
 - *Panicle length (PR)* : 21.7 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 4.0 cm
 - *Panicle exertion (PR)* : 7.0 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 30.13 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to acid soil tolerance
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 605
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 11 × PM 17500-2-1)×PM 17467B]5-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant
6. **Salient characteristics (Refer Annexure I-7)**
 - *Days to 50% flowering (R)* : 80 days
 - *Days to 50% flowering (PR)* : 85 days
 - *Plant height(R)* : 1.7 m
 - *Plant height (PR)* : 1.1 m
 - *Grain yield (R)* : 4.4 t ha⁻¹
 - *Grain yield (PR)* : 4.5 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 25.7 cm
 - *Panicle length (PR)* : 22.1 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 3.0 cm
 - *Panicle exertion (PR)* : 5.3 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 32.26 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to acid soil tolerance
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/ Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 606
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 26 × PM 17467B)×PM 17467B]10-3-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant
6. **Salient characteristics (Refer Annexure I-7)**
 - *Days to 50% flowering (R)* : 79 days
 - *Days to 50% flowering (PR)* : 91 days
 - *Plant height(R)* : 1.5 m
 - *Plant height (PR)* : 1.0 m
 - *Grain yield (R)* : 2.6 t ha⁻¹
 - *Grain yield (PR)* : 3.2 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 24.2 cm
 - *Panicle length (PR)* : 20.1 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 6.5 cm
 - *Panicle exertion (PR)* : 6.3 cm
 - *Glume color (R)* : Red
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 27.74 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to acid soil tolerance
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 610
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(C 85-2 × SPV 475)×ICSR 108]5-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-7)

- *Days to 50% flowering (R)* : 69 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 3.0 t ha⁻¹
- *Grain yield (PR)* : 3.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 30.9 cm
- *Panicle length (PR)* : 25.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 5.3 cm
- *Panicle exertion (PR)* : 8.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 32.52 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to acid soil tolerance

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 612
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : ICSPI B/R MFR 55-304-1-4-5-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-7)

- *Days to 50% flowering (R)* : 72 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.3 t ha⁻¹
- *Grain yield (PR)* : 1.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.9 cm
- *Panicle length (PR)* : 21.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 10.0 cm
- *Panicle exertion (PR)* : 14.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 24.88 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to acid soil tolerance

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 614
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (SC 108-3 × CSV 4)-51-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-7)

- *Days to 50% flowering (R)* : 79 days
- *Days to 50% flowering (PR)* : 79 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 4.3 t ha⁻¹
- *Grain yield (PR)* : 2.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.2 cm
- *Panicle length (PR)* : 22.1 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 4.0 cm
- *Panicle exertion (PR)* : 6.7 cm
- *Glume color (R)* : Yellow
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 35.45 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to acid soil tolerance

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 676
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (E 36-1 × ICSB 17)12-3-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-7)

- *Days to 50% flowering (R)* : 72 days
- *Days to 50% flowering (PR)* : 85 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 2.8 t ha⁻¹
- *Grain yield (PR)* : 2.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.3 cm
- *Panicle length (PR)* : 23.1 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 3.3 cm
- *Panicle exertion (PR)* : 4.7 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Purple
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 34.89 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to stay-green

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 679
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : ((PS 14413 x ICSV 112)-3-1-1-1 × 296 B)3-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant
6. **Salient characteristics (Refer Annexure I-7)**
 - *Days to 50% flowering (R)* : 71 days
 - *Days to 50% flowering (PR)* : 87 days
 - *Plant height(R)* : 1.4 m
 - *Plant height (PR)* : 0.8 m
 - *Grain yield (R)* : 2.3 t ha⁻¹
 - *Grain yield (PR)* : 1.5 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 29.0 cm
 - *Panicle length (PR)* : 23.0 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 1.0 cm
 - *Panicle exertion (PR)* : 1.0 cm
 - *Glume color (R)* : Straw
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 29.48 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to stay-green
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 680
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : ((PS 14413 x ICSV 112)-3-1-1-1 × 296 B)6-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant
6. **Salient characteristics (Refer Annexure I-7)**
 - *Days to 50% flowering (R)* : 68 days
 - *Days to 50% flowering (PR)* : 79 days
 - *Plant height(R)* : 2.3 m
 - *Plant height (PR)* : 1.7 m
 - *Grain yield (R)* : 4.2 t ha⁻¹
 - *Grain yield (PR)* : 3.0 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 31.9 cm
 - *Panicle length (PR)* : 24.4 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 12.0 cm
 - *Panicle exertion (PR)* : 16.7 cm
 - *Glume color (R)* : Brown
 - *Glume color (PR)* : Black
 - *Grain color (PR)* : white
 - *1000 – grain weight (PR)* : 36.41 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to stay-green
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/ Summer season
 - *Economic product type* : Forage/Dual purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 685
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 54 × SAR 35)44-3-2-2-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Stress tolerant

6. Salient characteristics (Refer Annexure I-7)

- *Days to 50% flowering (R)* : 71 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height(R)* : 1.0 m
- *Plant height (PR)* : 0.8 m
- *Grain yield (R)* : 1.6 t ha⁻¹
- *Grain yield (PR)* : 1.9 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.3 cm
- *Panicle length (PR)* : 21.3 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 4.7 cm
- *Panicle exertion (PR)* : 7.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : white
- *1000 – grain weight (PR)* : 26.50 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to stay-green

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 688
2. **Cytoplasm source** : A2 CMS system
3. **Pedigree** : (ICSB 6 × IS 18525)4-1-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8)

- *Days to 50% flowering (R)* : 66 days
- *Days to 50% flowering (PR)* : 74 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 3.2 t ha⁻¹
- *Grain yield (PR)* : 2.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.2 cm
- *Panicle length (PR)* : 20.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 8.7 cm
- *Panicle exertion (PR)* : 15.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 38.76 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 694
2. **Cytoplasm source** : A2 CMS system
3. **Pedigree** : (ICSB 37 × IS 10475B)4-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8)

- *Days to 50% flowering (R)* : 65 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.3 t ha⁻¹
- *Grain yield (PR)* : 3.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.3 cm
- *Panicle length (PR)* : 23.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 10.7 cm
- *Panicle exertion (PR)* : 15.0 cm
- *Glume color (R)* : Black
- *Glume color (PR)* : Black
- *Grain color (PR)* : Red
- *1000 – grain weight (PR)* : 32.63 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 696
2. **Cytoplasm source** : A2 CMS system
3. **Pedigree** : (ICSB 37 × PM 17500-2-1)11-1-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8)

- *Days to 50% flowering (R)* : 80 days
- *Days to 50% flowering (PR)* : 94 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.3 t ha⁻¹
- *Grain yield (PR)* : 3.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 30.0 cm
- *Panicle length (PR)* : 26.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 5.0 cm
- *Panicle exertion (PR)* : 11.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.19 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 698
2. **Cytoplasm source** : A2 CMS system
3. **Pedigree** : [(ICSB 37 × ICSV 702) × PS 19349B]3-4-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height (R)* : 1.3 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 2.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.0 cm
- *Panicle length (PR)* : 22.2 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 1.0 cm
- *Panicle exertion (PR)* : 5.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.26 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 700
2. **Cytoplasm source** : A2 CMS system
3. **Pedigree** : (ICSB 42 × IS 23585)2-1-4
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8) □

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 84 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 3.1 t ha-1
- *Grain yield (PR)* : 2.8 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.9 cm
- *Panicle length (PR)* : 22.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 11.7 cm
- *Panicle exertion (PR)* : 15.7 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Red
- *1000 – grain weight (PR)* : 31.44 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 701
2. **Cytoplasm source** : A2 CMS system
3. **Pedigree** : (ICSB 51 × ICSV 705)10-4-1-4-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8)

- *Days to 50% flowering (R)* : 73 days
- *Days to 50% flowering (PR)* : 89 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 2.9 t ha⁻¹
- *Grain yield (PR)* : 2.5 t ha⁻¹
- *Panicle shape (R)* : Panicle broader in lower part
- *Panicle shape (PR)* : Panicle broader in lower part
- *Panicle length (R)* : 22.0 cm
- *Panicle length (PR)* : 16.1 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 4.0 cm
- *Panicle exertion (PR)* : 6.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.57 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 705
2. **Cytoplasm source** : A2 CMS system
3. **Pedigree** : [(ICSB 101 × TRL 74/C 57)×PM 17467B]8-4-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8)

- *Days to 50% flowering (R)* : 67 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 2.4 t ha⁻¹
- *Grain yield (PR)* : 2.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 23.3 cm
- *Panicle length (PR)* : 19.1 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 6.7 cm
- *Panicle exertion (PR)* : 6.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 25.47 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 706
2. **Cytoplasm source** : A2 CMS system
3. **Pedigree** : [(ICSB 101 × PM 17500-2-1)×PM 19268B]1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo
6. **Salient characteristics (Refer Annexure I-8)**
 - *Days to 50% flowering (R)* : 67 days
 - *Days to 50% flowering (PR)* : 74 days
 - *Plant height(R)* : 1.1 m
 - *Plant height (PR)* : 0.9 m
 - *Grain yield (R)* : 3.2 t ha-1
 - *Grain yield (PR)* : 2.5 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 23.1 cm
 - *Panicle length (PR)* : 17.7 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 1.7 cm
 - *Panicle exertion (PR)* : 5.7 cm
 - *Glume color (R)* : Straw
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 29.26 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : -
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 708
2. **Cytoplasm source** : A2 CMS system
3. **Pedigree** : [(ICSB 101 × IS 467) × (ICSB 6 × PM 17467B)]9-1-3-1-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo
6. **Salient characteristics (Refer Annexure I-8)**
 - *Days to 50% flowering (R)* : 68 days
 - *Days to 50% flowering (PR)* : 83 days
 - *Plant height(R)* : 1.3 m
 - *Plant height (PR)* : 1.1 m
 - *Grain yield (R)* : 3.4 t ha-1
 - *Grain yield (PR)* : 4.4 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 25.2 cm
 - *Panicle length (PR)* : 21.6 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 0.0 cm
 - *Panicle exertion (PR)* : 4.7 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 28.74 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : -
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 710
2. **Cytoplasm source** : A2 CMS system
3. **Pedigree** : [DKV 74 × (PB 10858 × DKV 74)]5-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8)

- *Days to 50% flowering (R)* : 75 days
- *Days to 50% flowering (PR)* : 97 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.1 t ha⁻¹
- *Grain yield (PR)* : 1.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.7 cm
- *Panicle length (PR)* : 25.0 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 13.3 cm
- *Panicle exertion (PR)* : 11.3cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 26.75 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 714
2. **Cytoplasm source** : A2 CMS system
3. **Pedigree** : (IS 2914 × ICSB 38)4-2-1-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8)

- *Days to 50% flowering (R)* : 73 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 4.4 t ha⁻¹
- *Grain yield (PR)* : 2.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.6 cm
- *Panicle length (PR)* : 22.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 10.0 cm
- *Panicle exertion (PR)* : 19.0cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 25.29 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 718
2. **Cytoplasm source** : A2 CMS system
3. **Pedigree** : [(IS 1347 × ICSB 17)×(ICSB 22 × ICSB 45)×
(ICSB 52 × ICSB 51)]1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo
6. **Salient characteristics (Refer Annexure I-8)**
 - *Days to 50% flowering (R)* : 70 days
 - *Days to 50% flowering (PR)* : 83 days
 - *Plant height(R)* : 1.4 m
 - *Plant height (PR)* : 1.0 m
 - *Grain yield (R)* : 2.8 t ha-1
 - *Grain yield (PR)* : 2.9 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 26.6 cm
 - *Panicle length (PR)* : 21.0 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 6.3 cm
 - *Panicle exertion (PR)* : 10.0cm
 - *Glume color (R)* : Red
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 37.93 g
 - *Grain shape (PR)* : Circular shape in
both dorsal and
profile view
 - *Resistance to (if any)* : -
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 719
2. **Cytoplasm source** : A2 CMS system
3. **Pedigree** : ICSP 1B/R MFR-S 7-191-1-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8)

- *Days to 50% flowering (R)* : 72 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 3.4 t ha⁻¹
- *Grain yield (PR)* : 4.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.2 cm
- *Panicle length (PR)* : 20.7 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 12.3 cm
- *Panicle exertion (PR)* : 12.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.54 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 720
2. **Cytoplasm source** : A2 CMS system
3. **Pedigree** : ICSP 1B/R MFR-S 7-191-1-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8) □

- *Days to 50% flowering (R)* : 72 days
- *Days to 50% flowering (PR)* : 89 days
- *Plant height (R)* : 1.1 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 1.8 t ha⁻¹
- *Grain yield (PR)* : 2.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 21.9 cm
- *Panicle length (PR)* : 18.6 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 12.0 cm
- *Panicle exertion (PR)* : 14.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 25.63 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 721
2. **Cytoplasm source** : A2 CMS system
3. **Pedigree** : ICSP 1B/R MFR-S 7-228-1-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8)

- *Days to 50% flowering (R)* : 85 days
- *Days to 50% flowering (PR)* : 96 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 2.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.3 cm
- *Panicle length (PR)* : 20.2 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 5.0 cm
- *Panicle exertion (PR)* : 6.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 25.23 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 722
2. **Cytoplasm source** : A2 CMS system
3. **Pedigree** : ICSP 1B/R MFR-S 7-228-1-1-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8) □

- *Days to 50% flowering (R)* : 85 days
- *Days to 50% flowering (PR)* : 98 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 1.8 t ha⁻¹
- *Grain yield (PR)* : 3.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.0 cm
- *Panicle length (PR)* : 23.7 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 3.0 cm
- *Panicle exertion (PR)* : 5.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 24.96 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 723
2. **Cytoplasm source** : A2 CMS system
3. **Pedigree** : ICSP 1B/R MFR-S 7-249-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8)

- *Days to 50% flowering (R)* : 72 days
- *Days to 50% flowering (PR)* : 96 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 1.7 t ha⁻¹
- *Grain yield (PR)* : 3.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.3 cm
- *Panicle length (PR)* : 21.0 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 14.3 cm
- *Panicle exertion (PR)* : 13.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 27.67 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 728
2. **Cytoplasm source** : A2 CMS system
3. **Pedigree** : Mali Sor 84-7
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 90 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 3.9 t ha-1
- *Grain yield (PR)* : 1.8 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.8 cm
- *Panicle length (PR)* : 18.2 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 6.0 cm
- *Panicle exertion (PR)* : 6.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.25 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 732
2. **Cytoplasm source** : A2 CMS system
3. **Pedigree** : (ICSV 197 × ICSP 2B MFR BK)-9-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8)

- *Days to 50% flowering (R)* : 73 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 4.8 t ha⁻¹
- *Grain yield (PR)* : 4.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.8 cm
- *Panicle length (PR)* : 20.8 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 7.7 cm
- *Panicle exertion (PR)* : 6.3 cm
- *Glume color (R)* : Yellow
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 27.39 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 737
2. **Cytoplasm source** : A2 CMS system
3. **Pedigree** : (SC 108-3 × CSV 4)-51-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8)

- *Days to 50% flowering (R)* : 76 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.5 t ha⁻¹
- *Grain yield (PR)* : 2.9 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.7 cm
- *Panicle length (PR)* : 20.9 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 1.0 cm
- *Panicle exertion (PR)* : 6.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 31.59 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 740
2. **Cytoplasm source** : A3 CMS system
3. **Pedigree** : (ICSB 13 × Mali Sor 84-7)5-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8)

- *Days to 50% flowering (R)* : 71 days
- *Days to 50% flowering (PR)* : 88 days
- *Plant height(R)* : 2.0 m
- *Plant height (PR)* : 1.5 m
- *Grain yield (R)* : 3.5 t ha⁻¹
- *Grain yield (PR)* : 3.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.9 cm
- *Panicle length (PR)* : 24.8 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 8.7 cm
- *Panicle exertion (PR)* : 18.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 35.03 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 741
2. **Cytoplasm source** : A3 CMS system
3. **Pedigree** : (ICSB 13 × Mali Sor 84-2)5-6
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 84 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 3.5 t ha⁻¹
- *Grain yield (PR)* : 4.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 31.1 cm
- *Panicle length (PR)* : 25.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 4.3 cm
- *Panicle exertion (PR)* : 10.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 31.19 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 742
2. **Cytoplasm source** : A3 CMS system
3. **Pedigree** : (ICSB 37 × PM 17500-2-1)3-11-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8)

- *Days to 50% flowering (R)* : 79 days
- *Days to 50% flowering (PR)* : 95 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.8 t ha⁻¹
- *Grain yield (PR)* : 3.9 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.6 cm
- *Panicle length (PR)* : 22.9 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 3.7 cm
- *Panicle exertion (PR)* : 13.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.45 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 743
2. **Cytoplasm source** : A3 CMS system
3. **Pedigree** : [(ICSB 101 × TRL 74/C 57)×PM 17467B]2-5-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8)

- *Days to 50% flowering (R)* : 73 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 4.2 t ha⁻¹
- *Grain yield (PR)* : 4.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 34.8 cm
- *Panicle length (PR)* : 29.9 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 11.3 cm
- *Panicle exertion (PR)* : 23.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.53 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 748
2. **Cytoplasm source** : A3 CMS system
3. **Pedigree** : (IS 8013 × ICSB 37)13-1-3-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8)

- *Days to 50% flowering (R)* : 72 days
- *Days to 50% flowering (PR)* : 84 days
- *Plant height(R)* : 2.0 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 4.1 t ha⁻¹
- *Grain yield (PR)* : 3.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 33.7 cm
- *Panicle length (PR)* : 26.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 18.7 cm
- *Panicle exertion (PR)* : 19.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 31.12 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 752
2. **Cytoplasm source** : A3 CMS system
3. **Pedigree** : [(IS 1347 × ICSB 17) × (ICSB 22 × ICSB 45) × (ICSB 52 × ICSB 51)]¹
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo
6. **Salient characteristics (Refer Annexure I-8)**
 - *Days to 50% flowering (R)* : 68 days
 - *Days to 50% flowering (PR)* : 83 days
 - *Plant height(R)* : 1.5 m
 - *Plant height (PR)* : 1.0 m
 - *Grain yield (R)* : 2.5 t ha⁻¹
 - *Grain yield (PR)* : 3.0 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 27.2 cm
 - *Panicle length (PR)* : 21.3 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 11.3 cm
 - *Panicle exertion (PR)* : 13.0 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 36.63 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : -
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/ Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 754
2. **Cytoplasm source** : A3 CMS system
3. **Pedigree** : [(IS12622C×555)(IS3612C×2219B)-5-1×E35-1]-5-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo
6. **Salient characteristics (Refer Annexure I-8)**
 - *Days to 50% flowering (R)* : 78 days
 - *Days to 50% flowering (PR)* : 79 days
 - *Plant height(R)* : 1.9 m
 - *Plant height (PR)* : 1.3 m
 - *Grain yield (R)* : 4.7 t ha⁻¹
 - *Grain yield (PR)* : 4.5 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 29.6 cm
 - *Panicle length (PR)* : 23.4 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 6.0 cm
 - *Panicle exertion (PR)* : 8.7 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 28.92 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : -
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Forage/Dual purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 755
2. **Cytoplasm source** : A3 CMS system
3. **Pedigree** : [(IS 23493 × ICSV 1) × ICSR 135]-6-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 86 days
- *Plant height (R)* : 1.5 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 2.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.8 cm
- *Panicle length (PR)* : 18.1 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 9.7 cm
- *Panicle exertion (PR)* : 11.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Yellow
- *1000 – grain weight (PR)* : 28.41 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 756
2. **Cytoplasm source** : A4 CMS system
3. **Pedigree** : (ICSB 6 × IS 18432)13-1-2-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.1 t ha⁻¹
- *Grain yield (PR)* : 3.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 23.6 cm
- *Panicle length (PR)* : 19.9 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 6.3 cm
- *Panicle exertion (PR)* : 12.0 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 34.66 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 760
2. **Cytoplasm source** : A4 CMS system
3. **Pedigree** : [(ICSB 101 × TRL 74/C 57)×PM 17467B]2-5
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo
6. **Salient characteristics (Refer Annexure I-8)**
 - *Days to 50% flowering (R)* : 74 days
 - *Days to 50% flowering (PR)* : 82 days
 - *Plant height(R)* : 1.6 m
 - *Plant height (PR)* : 1.2 m
 - *Grain yield (R)* : 4.1 t ha⁻¹
 - *Grain yield (PR)* : 4.1 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 35.1 cm
 - *Panicle length (PR)* : 27.8 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 10.0 cm
 - *Panicle exertion (PR)* : 25.0 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 30.42 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : -
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 763
2. **Cytoplasm source** : A4 CMS system
3. **Pedigree** : (IS 7672 × ICSB 16)1-16-1-1-1-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8)

- *Days to 50% flowering (R)* : 73 days
- *Days to 50% flowering (PR)* : 86 days
- *Plant height (R)* : 1.6 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.7 t ha⁻¹
- *Grain yield (PR)* : 2.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.4 cm
- *Panicle length (PR)* : 23.1 cm
- *Panicle type (R)* : Loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 4.3 cm
- *Panicle exertion (PR)* : 3.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 23.36 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 767
2. **Cytoplasm source** : A4 CMS system
3. **Pedigree** : [(IS 23493 × ICSV 1) × ICSR 135]-6-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Non-milo

6. Salient characteristics (Refer Annexure I-8)

- *Days to 50% flowering (R)* : 735days
- *Days to 50% flowering (PR)* : 85 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 3.7 t ha-1
- *Grain yield (PR)* : 4.8 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.8 cm
- *Panicle length (PR)* : 21.2 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 7.7 cm
- *Panicle exertion (PR)* : 9.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 35.19 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : -

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 462
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(IS 2195 × ICSP 1B/R-MFR)3-2 × (296 B × (296 B × QL 3))]27-2-1-2-2-5-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance
6. **Salient characteristics (Refer Annexure I-9)**
 - *Days to 50% flowering (R)* : 68 days
 - *Days to 50% flowering (PR)* : 79 days
 - *Plant height(R)* : 1.5 m
 - *Plant height (PR)* : 1.2 m
 - *Grain yield (R)* : 2.1 t ha⁻¹
 - *Grain yield (PR)* : 2.8 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 22.7 cm
 - *Panicle length (PR)* : 20.9 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 1.3 cm
 - *Panicle exertion (PR)* : 13.8 cm
 - *Glume color (R)* : Green
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 26.89 g
 - *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to shoot fly (postrainy)
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 474
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (IS 18432 × ICSB 6)11-1-1-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-9)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 86 days
- *Plant height(R)* : 2.7 m
- *Plant height (PR)* : 1.9 m
- *Grain yield (R)* : 5.0 t ha⁻¹
- *Grain yield (PR)* : 2.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 21.3 cm
- *Panicle length (PR)* : 18.8 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 1.8 cm
- *Panicle exertion (PR)* : 4.9 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 37.03 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to stem borer (rainy)

7. Potential use

- *Adaptation* : Rainy/Postrainy/ Summer season
- *Economic product type* : Forage/Dual purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 481
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 101 × ICSV 702)1-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-9)

- *Days to 50% flowering (R)* : 67 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.0 t ha⁻¹
- *Grain yield (PR)* : 3.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 20.4 cm
- *Panicle length (PR)* : 19.1 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 15.7 cm
- *Panicle exertion (PR)* : 8.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 23.49 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to stem borer (postrainy)

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 494
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 11 × PM 17500-2-1)×PM 17467B]3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance
6. **Salient characteristics (Refer Annexure I-9)**
 - *Days to 50% flowering (R)* : 63 days
 - *Days to 50% flowering (PR)* : 78 days
 - *Plant height(R)* : 1.2 m
 - *Plant height (PR)* : 0.9 m
 - *Grain yield (R)* : 2.2 t ha-1
 - *Grain yield (PR)* : 3.7 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 21.9 cm
 - *Panicle length (PR)* : 18.0 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 4.4 cm
 - *Panicle exertion (PR)* : 3.2 cm
 - *Glume color (R)* : Red
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 25.58 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to midge
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 497
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 11 × PM 17500-2-1)×PM 17467B]4-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance
6. **Salient characteristics (Refer Annexure I-9)**
 - *Days to 50% flowering (R)* : 67 days
 - *Days to 50% flowering (PR)* : 77 days
 - *Plant height(R)* : 1.4 m
 - *Plant height (PR)* : 1.0 m
 - *Grain yield (R)* : 2.7 t ha-1
 - *Grain yield (PR)* : 2.8 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 18.8 cm
 - *Panicle length (PR)* : 17.0 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 8.1 cm
 - *Panicle exertion (PR)* : 2.7 cm
 - *Glume color (R)* : Straw
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 26.36 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to midge
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 546
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : Mali Sor 84-7
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-9)

- *Days to 50% flowering (R)* : 69 days
- *Days to 50% flowering (PR)* : 87 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.6 t ha-1
- *Grain yield (PR)* : 4.0 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.0 cm
- *Panicle length (PR)* : 21.9 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 5.7 cm
- *Panicle exertion (PR)* : 4.9 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.74 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to head bug

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 552
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 13 × Mali Sor 84-7)4-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-9)

- *Days to 50% flowering (R)* : 66 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 2.7 t ha-1
- *Grain yield (PR)* : 3.3 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.1 cm
- *Panicle length (PR)* : 20.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 15.1 cm
- *Panicle exertion (PR)* : 13.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.89 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to head bug

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 559
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 13 × Mali Sor 84-7)5-6-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-9)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 75 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 2.5 t ha⁻¹
- *Grain yield (PR)* : 3.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.0 cm
- *Panicle length (PR)* : 24.2 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 7.9 cm
- *Panicle exertion (PR)* : 8.5 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 34.23 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to head bug

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 409
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [ICSB17×(SPV462×(ICSA 101×ICSV745))]1-3-2-1-3-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance
6. **Salient characteristics (Refer Annexure I-10)**
 - *Days to 50% flowering (R)* : 79 days
 - *Days to 50% flowering (PR)* : 88 days
 - *Plant height(R)* : 1.9 m
 - *Plant height (PR)* : 1.3 m
 - *Grain yield (R)* : 3.8 t ha⁻¹
 - *Grain yield (PR)* : 4.1 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 22.8 cm
 - *Panicle length (PR)* : 20.1 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 0.0 cm
 - *Panicle exertion (PR)* : 1.7 cm
 - *Glume color (R)* : Straw
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 32.41 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to shoot fly (rainy)
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/ Summer season
 - *Economic product type* : Forage/Dual purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 410
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 17 × SPV 462) × (ICSA 51 × ICSV 745)] × PS 19349B]8-2-2-2-5-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance
6. **Salient characteristics (Refer Annexure I-10)**
 - *Days to 50% flowering (R)* : 76 days
 - *Days to 50% flowering (PR)* : 86 days
 - *Plant height(R)* : 1.9 m
 - *Plant height (PR)* : 1.3 m
 - *Grain yield (R)* : 3.4 t ha-1
 - *Grain yield (PR)* : 4.3 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 22.2 cm
 - *Panicle length (PR)* : 20.7 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 0.0 cm
 - *Panicle exertion (PR)* : 2.3 cm
 - *Glume color (R)* : Straw
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 32.58 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to shoot fly (rainy)
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/ Summer season
 - *Economic product type* : Forage/Dual purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 411
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 36 × ICSV 705)7-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 71 days
- *Days to 50% flowering (PR)* : 76 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 3.5 t ha-1
- *Grain yield (PR)* : 3.1 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.1 cm
- *Panicle length (PR)* : 24.8 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 11.0 cm
- *Panicle exertion (PR)* : 15.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 33.93 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to shoot fly (rainy)

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 412
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 37 × ICSV 705)8-2-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 74 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 3.0 t ha⁻¹
- *Grain yield (PR)* : 3.0 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.1 cm
- *Panicle length (PR)* : 24.4 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 17.3 cm
- *Panicle exertion (PR)* : 17.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 37.38 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to shoot fly (rainy)

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 417
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 37 × ICSV 705)13-5-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 75 days
- *Days to 50% flowering (PR)* : 79 days
- *Plant height(R)* : 1.0 m
- *Plant height (PR)* : 0.8 m
- *Grain yield (R)* : 1.9 t ha⁻¹
- *Grain yield (PR)* : 1.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.3 cm
- *Panicle length (PR)* : 21.4 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 6.0 cm
- *Panicle exertion (PR)* : 4.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 32.17 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to shoot fly (rainy)

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 421
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 51 × ICSV 705)9-5-1-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 66 days
- *Days to 50% flowering (PR)* : 76 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.5 t ha⁻¹
- *Grain yield (PR)* : 2.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 23.1 cm
- *Panicle length (PR)* : 18.3 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 10.0 cm
- *Panicle exertion (PR)* : 5.3 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 33.27 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to shoot fly (rainy)

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 424
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 51 × ICSV 705)×PS 19349B]3-1-3-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 78 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.6 t ha⁻¹
- *Grain yield (PR)* : 2.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.9 cm
- *Panicle length (PR)* : 22.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 6.7 cm
- *Panicle exertion (PR)* : 12.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 25.79 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to shoot fly (rainy)

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 426
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 51 × ICSV 705)×PS 19349B]10-2-1-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 2.8 t ha⁻¹
- *Grain yield (PR)* : 2.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.2 cm
- *Panicle length (PR)* : 21.9 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 2.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 27.91 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to shoot fly (rainy)

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 427
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 51 × ICSV 705)×PS 19349B]10-2-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance
6. **Salient characteristics (Refer Annexure I-10)**
 - *Days to 50% flowering (R)* : 69 days
 - *Days to 50% flowering (PR)* : 76 days
 - *Plant height(R)* : 1.5 m
 - *Plant height (PR)* : 1.1 m
 - *Grain yield (R)* : 2.1 t ha⁻¹
 - *Grain yield (PR)* : 3.4 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 26.2 cm
 - *Panicle length (PR)* : 21.3 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 4.7 cm
 - *Panicle exertion (PR)* : 5.7 cm
 - *Glume color (R)* : Straw
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 27.84 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to shoot fly (rainy)
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 430
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 102 × PS 28060-3)4-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 74 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.9 t ha⁻¹
- *Grain yield (PR)* : 3.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.6 cm
- *Panicle length (PR)* : 21.2 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 18.0 cm
- *Panicle exertion (PR)* : 11.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 22.13 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to shoot fly (rainy)

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 436
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (MB 10 × ICSV 705)5-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 71 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.6 t ha⁻¹
- *Grain yield (PR)* : 4.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 31.6 cm
- *Panicle length (PR)* : 26.4 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 6.7 cm
- *Panicle exertion (PR)* : 14.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 25.88 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to shoot fly (rainy)

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 437
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [ICSB 11×(S 35 × Farafara)]1-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 79 days
- *Days to 50% flowering (PR)* : 88 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.1 t ha⁻¹
- *Grain yield (PR)* : 3.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.6 cm
- *Panicle length (PR)* : 24.2 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 2.3 cm
- *Panicle exertion (PR)* : 7.7 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 28.43 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to shoot fly (postrainy)

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 438
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 37 × ICSV 705)2-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 78 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.1 t ha⁻¹
- *Grain yield (PR)* : 3.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 23.9 cm
- *Panicle length (PR)* : 21.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 5.0 cm
- *Panicle exertion (PR)* : 3.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.25 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to shoot fly (postrainy)

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 439
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 37 × ICSV 705)6-3-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 73 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 3.2 t ha⁻¹
- *Grain yield (PR)* : 4.0 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.8 cm
- *Panicle length (PR)* : 21.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 2.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 27.23 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to shoot fly (postrainy)

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 441
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 37 × ICSV 705)13-3-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 74 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 3.0 t ha⁻¹
- *Grain yield (PR)* : 2.9 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.1 cm
- *Panicle length (PR)* : 23.8 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 2.0 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 30.72 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to shoot fly (postrainy)

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 442
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 37 × ICSV 705)13-3-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 76 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 0.8 m
- *Grain yield (R)* : 2.6 t ha⁻¹
- *Grain yield (PR)* : 2.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.8 cm
- *Panicle length (PR)* : 23.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 2.7 cm
- *Panicle exertion (PR)* : 0.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 28.17 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to shoot fly (postrainy)

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 447
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 37 × ICSV 705)13-5-2-2-1-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 77 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.8 t ha⁻¹
- *Grain yield (PR)* : 3.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.9 cm
- *Panicle length (PR)* : 23.3 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 6.3 cm
- *Panicle exertion (PR)* : 6.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 33.20 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to shoot fly (postrainy)

7. Potential use

- *Adaptation* : Rainy/Postrainy/ Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 448
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 37 × ICSV 705)13-5-2-2-1-3-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 75 days
- *Days to 50% flowering (PR)* : 99 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 4.0 t ha⁻¹
- *Grain yield (PR)* : 3.5 t ha⁻¹
- *Panicle shape (R)* : Broader in lower part
- *Panicle shape (PR)* : Broader in lower part
- *Panicle length (R)* : 33.8 cm
- *Panicle length (PR)* : 29.4 cm
- *Panicle type (R)* : Loose
- *Panicle type (PR)* : Loose
- *Panicle exertion (R)* : 15.0 cm
- *Panicle exertion (PR)* : 14.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 20.03 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to shoot fly (postrainy)

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 455
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 101 × ICSV 705)1-3-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 75 days
- *Days to 50% flowering (PR)* : 89 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 2.4 t ha⁻¹
- *Grain yield (PR)* : 1.9 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.4 cm
- *Panicle length (PR)* : 18.7 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 1.3 cm
- *Panicle exertion (PR)* : 4.3 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Green
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 24.13 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to shoot fly (postrainy)

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 456
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 101 × ICSV 705)7-2-3-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 78 days
- *Days to 50% flowering (PR)* : 100 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 1.9 t ha⁻¹
- *Grain yield (PR)* : 1.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.6 cm
- *Panicle length (PR)* : 23.1 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 3.7 cm
- *Panicle exertion (PR)* : 4.7 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Green
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.57 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to shoot fly (postrainy)

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 458
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 102 × PS 28060-3)4-2-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 73 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 1.1 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 2.2 t ha⁻¹
- *Grain yield (PR)* : 3.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 21.6 cm
- *Panicle length (PR)* : 17.9 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 1.0 cm
- *Panicle exertion (PR)* : 0.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 25.71 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to shoot fly (postrainy)

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 459
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [296 B×{(296 B × QL 3)-27-2-1-7-2-5 × {ICSB 11×(S 35 × FaraFara)}}]1-1-2-2-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance
6. **Salient characteristics (Refer Annexure I-10)**
 - *Days to 50% flowering (R)* : 70 days
 - *Days to 50% flowering (PR)* : 71 days
 - *Plant height(R)* : 1.7 m
 - *Plant height (PR)* : 1.2 m
 - *Grain yield (R)* : 2.9 t ha⁻¹
 - *Grain yield (PR)* : 1.9 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 30.2 cm
 - *Panicle length (PR)* : 23.4 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 10.3 cm
 - *Panicle exertion (PR)* : 12.7 cm
 - *Glume color (R)* : Straw
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 35.12 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to shoot fly (postrainy)
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/ Summer season
 - *Economic product type* : Grain purpose



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 463
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (PS 14454 × SPV 351)1-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 78 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.0 t ha⁻¹
- *Grain yield (PR)* : 2.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.9 cm
- *Panicle length (PR)* : 24.0 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 3.0 cm
- *Panicle exertion (PR)* : 4.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 30.38 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to shoot fly (postrainy)

7. Potential use

- *Adaptation* : Rainy/Postrainy/ Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 466
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [((ICSB 11 × ICSV 700)×PS 19349B)×ICSB 13]2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance
6. **Salient characteristics (Refer Annexure I-10)**
 - *Days to 50% flowering (R)* : 65 days
 - *Days to 50% flowering (PR)* : 79 days
 - *Plant height(R)* : 1.6 m
 - *Plant height (PR)* : 1.5 m
 - *Grain yield (R)* : 2.4 t ha⁻¹
 - *Grain yield (PR)* : 4.3 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 31.0 cm
 - *Panicle length (PR)* : 26.4 cm
 - *Panicle type (R)* : Loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 8.7 cm
 - *Panicle exertion (PR)* : 16.3 cm
 - *Glume color (R)* : Red
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 24.13 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to stem borer (rainy)
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 473
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 102 × ICSV 700)5-2-4-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 72 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height (R)* : 1.6 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 3.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 17.7 cm
- *Panicle length (PR)* : 15.0 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 11.7 cm
- *Panicle exertion (PR)* : 8.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.89 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to stem borer (rainy)

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 476
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 37 × ICSV 702)×PS 19349B]2-2-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 78 days
- *Days to 50% flowering (PR)* : 91 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 4.3 t ha⁻¹
- *Grain yield (PR)* : 4.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.9 cm
- *Panicle length (PR)* : 26.8 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 10.3 cm
- *Panicle exertion (PR)* : 3.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.52 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to stem borer (postrainy)

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 480
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 70 × ICSV 700)×PS 19349B]5-4-1-4-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 73 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 2.7 m
- *Plant height (PR)* : 1.6 m
- *Grain yield (R)* : 3.0 t ha⁻¹
- *Grain yield (PR)* : 2.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 21.6 cm
- *Panicle length (PR)* : 15.4 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 6.3 cm
- *Panicle exertion (PR)* : 5.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Pearly white
- *1000 – grain weight (PR)* : 29.02 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to stem borer (postrainy)

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/dual purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 482
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 101 × ICSV 702)1-3-5-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 77 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.4 t ha⁻¹
- *Grain yield (PR)* : 3.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.2 cm
- *Panicle length (PR)* : 21.9 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 2.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 25.29 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to stem borer (postrainy)

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 487
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 102 × ICSV 700)5-2-4-2-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 76 days
- *Days to 50% flowering (PR)* : 86 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.1 t ha⁻¹
- *Grain yield (PR)* : 2.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 15.4 cm
- *Panicle length (PR)* : 14.6 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 8.0 cm
- *Panicle exertion (PR)* : 8.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 27.51 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to stem borer (postrainy)

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 489
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 11 × PM 17467B)3-1-2-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 79 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.8 t ha⁻¹
- *Grain yield (PR)* : 4.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 19.4 cm
- *Panicle length (PR)* : 19.2 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 0.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 35.71 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to midge

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 492
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 11 × PM 17500-2-1)×PM 17467B]1-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 72 days
- *Days to 50% flowering (PR)* : 91 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.8 t ha⁻¹
- *Grain yield (PR)* : 5.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 22.2 cm
- *Panicle length (PR)* : 22.2 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 5.7 cm
- *Panicle exertion (PR)* : 4.7 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Pearly white
- *1000 – grain weight (PR)* : 27.60 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to midge

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 493
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 11 × PM 17500-2-1)×PM 17467B]3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 67 days
- *Days to 50% flowering (PR)* : 82 days
- *Plant height(R)* : 1.1 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 2.3 t ha⁻¹
- *Grain yield (PR)* : 3.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 21.2 cm
- *Panicle length (PR)* : 18.3 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 5.0 cm
- *Panicle exertion (PR)* : 3.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 34.05 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to midge

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 495
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 11 × PM 17500-2-1)×PM 17467B]3-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10) □

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 84 days
- *Plant height (R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.1 t ha⁻¹
- *Grain yield (PR)* : 5.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 21.7 cm
- *Panicle length (PR)* : 20.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 8.0 cm
- *Panicle exertion (PR)* : 6.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 26.31 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to midge

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 506
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 26 × PM 17467B)1-1-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 74 days
- *Days to 50% flowering (PR)* : 76 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 4.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 23.2 cm
- *Panicle length (PR)* : 18.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 2.3 cm
- *Panicle exertion (PR)* : 5.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 25.36 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to midge

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 509
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 26 × PM 17467B)×PM 17467B]4-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance
6. **Salient characteristics (Refer Annexure I-10)**
 - *Days to 50% flowering (R)* : 71 days
 - *Days to 50% flowering (PR)* : 84 days
 - *Plant height(R)* : 1.7 m
 - *Plant height (PR)* : 1.5 m
 - *Grain yield (R)* : 2.4 t ha-1
 - *Grain yield (PR)* : 2.9 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 25.4 cm
 - *Panicle length (PR)* : 23.6 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 17.3 cm
 - *Panicle exertion (PR)* : 16.7 cm
 - *Glume color (R)* : Straw
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 24.89 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to midge
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 511
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 26 × PM 17467B)×PM 17467B]10-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 67 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 1.1 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 1.9 t ha-1
- *Grain yield (PR)* : 2.5 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 23.9 cm
- *Panicle length (PR)* : 18.9 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 5.3 cm
- *Panicle exertion (PR)* : 9.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 25.01 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to midge

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 513
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 26 × PM 17467B)×PM 17467B]10-3-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 76 days
- *Days to 50% flowering (PR)* : 89 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.0 t ha⁻¹
- *Grain yield (PR)* : 4.9 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 22.9 cm
- *Panicle length (PR)* : 20.6 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 4.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 26.85 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to midge

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 517
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 26 × PM 17467B)×PM 7061B]2-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance
6. **Salient characteristics (Refer Annexure I-10)**
 - *Days to 50% flowering (R)* : 71 days
 - *Days to 50% flowering (PR)* : 87 days
 - *Plant height(R)* : 1.1 m
 - *Plant height (PR)* : 0.9 m
 - *Grain yield (R)* : 2.2 t ha⁻¹
 - *Grain yield (PR)* : 4.2 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 21.3 cm
 - *Panicle length (PR)* : 19.7 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 1.7 cm
 - *Panicle exertion (PR)* : 2.0 cm
 - *Glume color (R)* : Red
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 31.00 g
 - *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to midge
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 519
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 26 × PM 17500-2-1)×PM 17467B]1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 74 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 3.3 t ha⁻¹
- *Grain yield (PR)* : 4.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.2 cm
- *Panicle length (PR)* : 22.4 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 1.3 cm
- *Panicle exertion (PR)* : 3.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 26.76 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to midge

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 521
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 37 × PM 17467B)2-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 79 days
- *Days to 50% flowering (PR)* : 79 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 3.2 t ha⁻¹
- *Grain yield (PR)* : 4.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.6 cm
- *Panicle length (PR)* : 20.2 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 2.0 cm
- *Panicle exertion (PR)* : 5.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 31.52 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to midge

7. Potential use

- *Adaptation* : Rainy/Postrainy/



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 522
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 37 × PM 17467B)3-1-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 69 days
- *Days to 50% flowering (PR)* : 84 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.9 t ha⁻¹
- *Grain yield (PR)* : 3.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 22.1 cm
- *Panicle length (PR)* : 20.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 6.7 cm
- *Panicle exertion (PR)* : 10.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 33.82 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to midge

7. Potential use

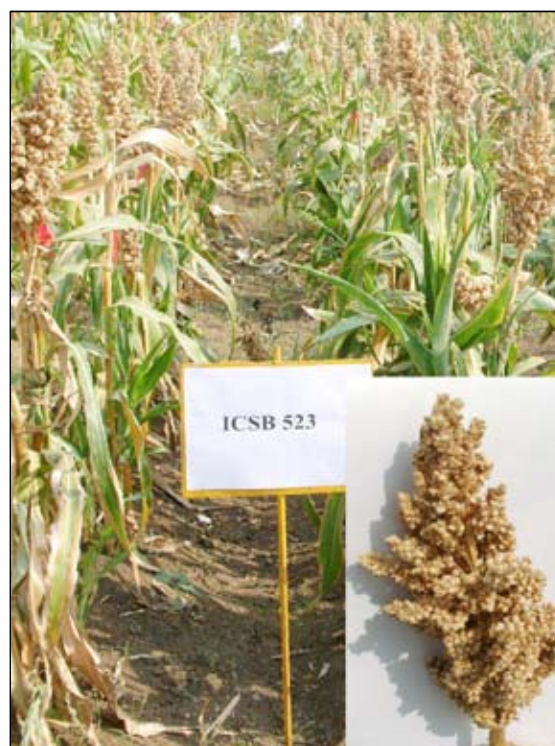
- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 523
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 37 × PM 17500-2-1)×PM 17682B]1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance
6. **Salient characteristics (Refer Annexure I-10)**
 - *Days to 50% flowering (R)* : 73 days
 - *Days to 50% flowering (PR)* : 78 days
 - *Plant height(R)* : 1.6 m
 - *Plant height (PR)* : 1.1 m
 - *Grain yield (R)* : 3.3 t ha-1
 - *Grain yield (PR)* : 4.4 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 26.2 cm
 - *Panicle length (PR)* : 20.8 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 10.3 cm
 - *Panicle exertion (PR)* : 3.7 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 27.35 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to midge
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 524
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 37 × PM 17500-2-1)×PM 17682B]6-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance
6. **Salient characteristics (Refer Annexure I-10)**
 - *Days to 50% flowering (R)* : 69 days
 - *Days to 50% flowering (PR)* : 82 days
 - *Plant height(R)* : 1.5 m
 - *Plant height (PR)* : 1.1 m
 - *Grain yield (R)* : 2.7 t ha-1
 - *Grain yield (PR)* : 3.5 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 24.0 cm
 - *Panicle length (PR)* : 18.3 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 13.0 cm
 - *Panicle exertion (PR)* : 5.7 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Cream
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 29.32 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to midge
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 525
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 51 × PM 17467B)15-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 69 days
- *Days to 50% flowering (PR)* : 84 days
- *Plant height(R)* : 1.0 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 2.4 t ha⁻¹
- *Grain yield (PR)* : 2.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 21.7 cm
- *Panicle length (PR)* : 19.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 1.0 cm
- *Panicle exertion (PR)* : 5.7 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.52 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to midge

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 527
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 70 × PM 17467B)9-1-1-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 77 days
- *Days to 50% flowering (PR)* : 99 days
- *Plant height(R)* : 1.1 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 2.3 t ha⁻¹
- *Grain yield (PR)* : 4.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 17.9 cm
- *Panicle length (PR)* : 18.2 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 2.7 cm
- *Panicle exertion (PR)* : 2.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.83 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to midge

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 528
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 70 × PM 17467B)9-1-1-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 78 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 2.9 t ha⁻¹
- *Grain yield (PR)* : 3.0 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.8 cm
- *Panicle length (PR)* : 22.3 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 1.0 cm
- *Panicle exertion (PR)* : 2.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 26.73 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to midge

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 533
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 70 × PM 17467B)14-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 73 days
- *Days to 50% flowering (PR)* : 86 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 4.0 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 19.4 cm
- *Panicle length (PR)* : 16.3 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 0.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 31.02 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to midge

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 534
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 70 × PM 17467B)×PM 17682B]3-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 91 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.1 t ha⁻¹
- *Grain yield (PR)* : 4.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.0 cm
- *Panicle length (PR)* : 22.1 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 8.7 cm
- *Panicle exertion (PR)* : 6.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 25.87 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to midge

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 536
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 70 × PM 17500-2-1)6-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 74 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.2 t ha-1
- *Grain yield (PR)* : 3.7 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 22.4 cm
- *Panicle length (PR)* : 18.7 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 4.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.05 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to midge

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 542
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : ICSP-1B/R-MFR-57-191-1-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 71 days
- *Days to 50% flowering (PR)* : 88 days
- *Plant height(R)* : 1.1 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 1.7 t ha⁻¹
- *Grain yield (PR)* : 2.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 19.8 cm
- *Panicle length (PR)* : 19.6 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 11.7 cm
- *Panicle exertion (PR)* : 9.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.51 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to midge

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 543
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : ICSP-1B/R-MFR-57-197-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 89 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.6 t ha⁻¹
- *Grain yield (PR)* : 2.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 22.0 cm
- *Panicle length (PR)* : 20.9 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 15.7 cm
- *Panicle exertion (PR)* : 9.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 25.14 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to midge

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 545
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : ICSP-1B/R-MFR-57-228-1-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 97 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 3.0 t ha⁻¹
- *Grain yield (PR)* : 2.0 t ha⁻¹
- *Panicle shape (R)* : Broader in lower part
- *Panicle shape (PR)* : Broader in lower part
- *Panicle length (R)* : 22.7 cm
- *Panicle length (PR)* : 18.7 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 15.0 cm
- *Panicle exertion (PR)* : 8.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 24.89 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to midge

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

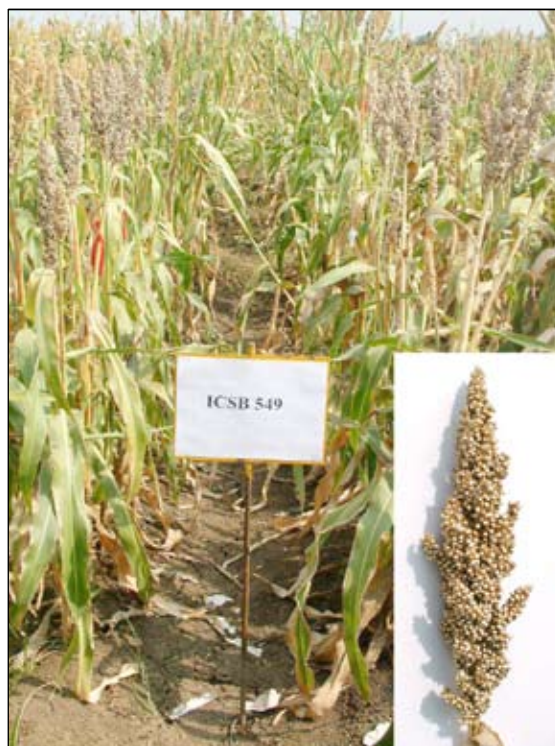
1. **Designated number** : ICSA/B 549
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 13 × Mali Sor 84-2)5-2-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 74 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 2.4 t ha⁻¹
- *Grain yield (PR)* : 3.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.9 cm
- *Panicle length (PR)* : 25.9 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 4.0 cm
- *Panicle exertion (PR)* : 8.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 31.67 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to head bug

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 550
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 13 × Mali Sor 84-7)1-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 69 days
- *Days to 50% flowering (PR)* : 85 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 2.4 t ha⁻¹
- *Grain yield (PR)* : 4.0 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.3 cm
- *Panicle length (PR)* : 23.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 10.7 cm
- *Panicle exertion (PR)* : 6.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Purple
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 25.06 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to head bug

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 553
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 13 × Mali Sor 84-7)4-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 74 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 2.8 t ha⁻¹
- *Grain yield (PR)* : 3.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.2 cm
- *Panicle length (PR)* : 21.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 3.3 cm
- *Panicle exertion (PR)* : 10.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Yellow
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 33.67 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to head bug

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 563
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 38 × Mali Sor 84-7)4-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 75 days
- *Days to 50% flowering (PR)* : 84 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 3.8 t ha⁻¹
- *Grain yield (PR)* : 4.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.6 cm
- *Panicle length (PR)* : 22.2 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 7.0 cm
- *Panicle exertion (PR)* : 3.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Yellow
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 30.83 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to head bug

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 565
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 38 × Mali Sor 84-7)4-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-10)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 2.4 t ha-1
- *Grain yield (PR)* : 3.2 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.9 cm
- *Panicle length (PR)* : 21.0 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 11.0 cm
- *Panicle exertion (PR)* : 5.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Purple
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 31.03 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to head bug

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 428
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 101 × ICSV 705)1-3-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-11)

- *Days to 50% flowering (R)* : 81 days
- *Days to 50% flowering (PR)* : 98 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.4 t ha⁻¹
- *Grain yield (PR)* : 2.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.1 cm
- *Panicle length (PR)* : 20.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 7.3 cm
- *Panicle exertion (PR)* : 8.7 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Green
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 26.08 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to shoot fly (rainy season)

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 433
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (PS 21303 × SPV 386)1-3-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-11)

- *Days to 50% flowering (R)* : 78 days
- *Days to 50% flowering (PR)* : 84 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 3.5 t ha⁻¹
- *Grain yield (PR)* : 4.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.6 cm
- *Panicle length (PR)* : 21.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 5.3 cm
- *Panicle exertion (PR)* : 7.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 27.93 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to shoot fly (rainy season)

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 434
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (PS 21303 × SPV 386)1-3-2-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-11)

- *Days to 50% flowering (R)* : 78 days
- *Days to 50% flowering (PR)* : 84 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 3.5 t ha⁻¹
- *Grain yield (PR)* : 4.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.7 cm
- *Panicle length (PR)* : 22.8 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 6.3 cm
- *Panicle exertion (PR)* : 6.7 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 27.66 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to shoot fly (rainy season)

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 443
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 37 × ICSV 705)13-3-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-11)

- *Days to 50% flowering (R)* : 80 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.6 t ha⁻¹
- *Grain yield (PR)* : 4.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.6 cm
- *Panicle length (PR)* : 25.3 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 1.0 cm
- *Panicle exertion (PR)* : 1.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 30.11 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to shoot fly (postrainy season)

7. Potential use

- *Adaptation* : Rainy/Postrainy/ Summer season



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 453
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 51 × ICSV 705)×PS 19349B]6-3-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-11)

- *Days to 50% flowering (R)* : 81 days
- *Days to 50% flowering (PR)* : 85 days
- *Plant height(R)* : 2.1 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 1.8 t ha⁻¹
- *Grain yield (PR)* : 2.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.7 cm
- *Panicle length (PR)* : 18.0 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 9.0 cm
- *Panicle exertion (PR)* : 11.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 27.01 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to shoot fly (postrainy season)

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 468
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [((ICSB 26 × ICSV 700)×PS 19349B)×ICSB 3]1-1-3-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-11)

- *Days to 50% flowering (R)* : 78 days
- *Days to 50% flowering (PR)* : 87 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.9 t ha⁻¹
- *Grain yield (PR)* : 3.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.2 cm
- *Panicle length (PR)* : 22.8 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 7.0 cm
- *Panicle exertion (PR)* : 3.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 25.79 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to stem borer (postrainy season)

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 526
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 70 × PM 17467B)2-1-2-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-11)

- *Days to 50% flowering (R)* : 82 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 3.3 t ha⁻¹
- *Grain yield (PR)* : 4.0 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 23.5 cm
- *Panicle length (PR)* : 20.4 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 6.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.23 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to midge

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 530
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : (ICSB 70 × PM 17467B)9-1-1-1-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance

6. Salient characteristics (Refer Annexure I-11)

- *Days to 50% flowering (R)* : 78 days
- *Days to 50% flowering (PR)* : 98 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.1 t ha⁻¹
- *Grain yield (PR)* : 4.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 22.3 cm
- *Panicle length (PR)* : 21.1 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 1.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Green
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 31.11 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* : Tolerant to midge

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Cytoplasm-Nuclear Male-Sterile (CMS) line

1. **Designated number** : ICSA/B 538
2. **Cytoplasm source** : A1 CMS system
3. **Pedigree** : [(ICSB 70 × PM 17500-2-1)×PM 17682B]1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : Pest resistance
6. **Salient characteristics (Refer Annexure I-11)**
 - *Days to 50% flowering (R)* : 77 days
 - *Days to 50% flowering (PR)* : 86 days
 - *Plant height(R)* : 1.6 m
 - *Plant height (PR)* : 1.1 m
 - *Grain yield (R)* : 3.3 t ha-1
 - *Grain yield (PR)* : 4.1 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 29.4 cm
 - *Panicle length (PR)* : 25.9 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 7.3 cm
 - *Panicle exertion (PR)* : 5.3 cm
 - *Glume color (R)* : Purple
 - *Glume color (PR)* : Purple
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 31.95 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* : Tolerant to midge
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent
(female)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 32
2. **Restorers** : A1
3. **Pedigree** : (SC 108-3 x CSV 4)-29-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 69 days
- *Days to 50% flowering (PR)* : 82 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 3.6 t ha⁻¹
- *Grain yield (PR)* : 4.0 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.2 cm
- *Panicle length (PR)* : 20.3 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 4.7 cm
- *Panicle exertion (PR)* : 5.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 31.74 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 45
2. **Restorers** : A1
3. **Pedigree** : [(148 × E 35-1) × 148]-3-1-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 67 days
- *Days to 50% flowering (PR)* : 86 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.5 t ha-1
- *Grain yield (PR)* : 3.8 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.1 cm
- *Panicle length (PR)* : 24.4 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 0.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 34.22 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 46
2. **Restorers** : A1
3. **Pedigree** : (IS 12611 × SC 108-3)-1-1-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 84 days
- *Days to 50% flowering (PR)* : 88 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 1.6 t ha⁻¹
- *Grain yield (PR)* : 3.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 20.6 cm
- *Panicle length (PR)* : 26.0 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 5.3 cm
- *Panicle exertion (PR)* : 8.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 34.50 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 54
2. **Restorers** : A1
3. **Pedigree** : [(Lulu 5 × 36D) × (146 × UChV2)]-2-5
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 72 days
- *Days to 50% flowering (PR)* : 85 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.4 t ha-1
- *Grain yield (PR)* : 3.8 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.3 cm
- *Panicle length (PR)* : 21.7 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 6.7 cm
- *Panicle exertion (PR)* : 8.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Purple
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 35.13 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 55
2. **Restorers** : A1
3. **Pedigree** : (SC 108-3 × CSV 4)-14-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 3.9 t ha-1
- *Grain yield (PR)* : 2.7 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.9 cm
- *Panicle length (PR)* : 20.4 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 6.0 cm
- *Panicle exertion (PR)* : 8.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.69 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 59
2. **Restorers** : A1
3. **Pedigree** : (146 × CSV 4)-18-7-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-12)**
 - *Days to 50% flowering (R)* : 64 days
 - *Days to 50% flowering (PR)* : 79 days
 - *Plant height(R)* : 1.4 m
 - *Plant height (PR)* : 1.0 m
 - *Grain yield (R)* : 3.2 t ha⁻¹
 - *Grain yield (PR)* : 3.9 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 27.7 cm
 - *Panicle length (PR)* : 24.9 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 6.0 cm
 - *Panicle exertion (PR)* : 6.0 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 32.88 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 60
2. **Restorers** : A1
3. **Pedigree** : (Swarna × CS 3687)-6-1-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 67 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.4 t ha-1
- *Grain yield (PR)* : 3.7 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.9 cm
- *Panicle length (PR)* : 25.1 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 8.0 cm
- *Panicle exertion (PR)* : 4.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.18 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 61
2. **Restorers** : A1
3. **Pedigree** : (SC 108-4-8 × CSV 4)-60-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 67 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 3.2 t ha⁻¹
- *Grain yield (PR)* : 2.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.4 cm
- *Panicle length (PR)* : 23.4 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 5.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 35.03 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 64
2. **Restorers** : A1
3. **Pedigree** : (SC 108-4-8 × CSV 4)-10-1-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 67 days
- *Days to 50% flowering (PR)* : 74 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 3.7 t ha-1
- *Grain yield (PR)* : 3.8 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.6 cm
- *Panicle length (PR)* : 21.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 4.3 cm
- *Panicle exertion (PR)* : 8.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.41 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 69
2. **Restorers** : A1
3. **Pedigree** : (UChV2 × E 35-1)-11-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 72 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 4.1 t ha-1
- *Grain yield (PR)* : 2.9 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.1 cm
- *Panicle length (PR)* : 20.9 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 4.3 cm
- *Panicle exertion (PR)* : 7.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 35.95 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 79
2. **Restorers** : A1
3. **Pedigree** : [(SC 108-3 × Swarna) × CSV 4]-15-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 77 days
- *Days to 50% flowering (PR)* : 93 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.6 t ha⁻¹
- *Grain yield (PR)* : 2.0 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 23.4 cm
- *Panicle length (PR)* : 19.1 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 1.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.42 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 80
2. **Restorers** : A1
3. **Pedigree** : [(SC 108-3 × Swarna) × CSV 4]-37-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-12)**
 - *Days to 50% flowering (R)* : 69 days
 - *Days to 50% flowering (PR)* : 79 days
 - *Plant height(R)* : 2.2 m
 - *Plant height (PR)* : 1.5 m
 - *Grain yield (R)* : 3.5 t ha⁻¹
 - *Grain yield (PR)* : 3.7 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 21.9 cm
 - *Panicle length (PR)* : 17.6 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 2.7 cm
 - *Panicle exertion (PR)* : 3.7 cm
 - *Glume color (R)* : Straw
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 35.98 g
 - *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Forage/Dual
purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 81
2. **Restorers** : A1
3. **Pedigree** : [(2219B × Swarna) × CSV 4]-11-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 73 days
- *Days to 50% flowering (PR)* : 93 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.5 t ha⁻¹
- *Grain yield (PR)* : 3.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.0 cm
- *Panicle length (PR)* : 26.6 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.3 cm
- *Panicle exertion (PR)* : 6.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Brown
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 31.84 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 88
2. **Restorers** : A1
3. **Pedigree** : [SC 170 × (SC 108-3 × 148)]-1-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 73 days
- *Days to 50% flowering (PR)* : 94 days
- *Plant height(R)* : 1.1 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.0 t ha⁻¹
- *Grain yield (PR)* : 4.0 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.1 cm
- *Panicle length (PR)* : 24.3 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 2.7 cm
- *Panicle exertion (PR)* : 4.3 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Yellow
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 31.53 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 94
2. **Restorers** : A1
3. **Pedigree** : [(CSV 4 × 4-26) × (SC 108-3 × 148)-12-10
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-12)** □
 - *Days to 50% flowering (R)* : 72 days
 - *Days to 50% flowering (PR)* : 87 days
 - *Plant height(R)* : 1.3 m
 - *Plant height (PR)* : 1.0 m
 - *Grain yield (R)* : 2.8 t ha-1
 - *Grain yield (PR)* : 2.6 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 21.7 cm
 - *Panicle length (PR)* : 21.1 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 4.0 cm
 - *Panicle exertion (PR)* : 6.3 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 34.82 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 97
2. **Restorers** : A1
3. **Pedigree** : [(IS 12645 × CSV 4) × IS 9327deri]
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 75 days
- *Days to 50% flowering (PR)* : 85 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.0 t ha-1
- *Grain yield (PR)* : 3.1 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.8 cm
- *Panicle length (PR)* : 21.8 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 4.3 cm
- *Panicle exertion (PR)* : 4.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Yellow
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 43.16 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 105
2. **Restorers** : A1
3. **Pedigree** : {MR 840 × [(2077B × 9327) × R 2797]}-15-2-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-12)**
 - *Days to 50% flowering (R)* : 69 days
 - *Days to 50% flowering (PR)* : 82 days
 - *Plant height(R)* : 1.7 m
 - *Plant height (PR)* : 1.2 m
 - *Grain yield (R)* : 3.7 t ha-1
 - *Grain yield (PR)* : 3.4 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 31.9 cm
 - *Panicle length (PR)* : 24.6 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 9.0 cm
 - *Panicle exertion (PR)* : 8.3 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 30.25 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 113
2. **Restorers** : A1
3. **Pedigree** : {[Safrā × (SC 108-3 × E 35-1)-5-1] × CSV 4}-3-4-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-12)**
 - *Days to 50% flowering (R)* : 68 days
 - *Days to 50% flowering (PR)* : 83 days
 - *Plant height(R)* : 1.7 m
 - *Plant height (PR)* : 1.3 m
 - *Grain yield (R)* : 3.5 t ha-1
 - *Grain yield (PR)* : 2.8 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 33.3 cm
 - *Panicle length (PR)* : 28.4 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 10.3 cm
 - *Panicle exertion (PR)* : 12.0 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 30.13 g
 - *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 121
2. **Restorers** : A1
3. **Pedigree** : {[IS 19614 × (148 × E 35-1)] × CSV 4}-5-3-4-5-6-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-12)** ☐
 - *Days to 50% flowering (R)* : 67 days
 - *Days to 50% flowering (PR)* : 84 days
 - *Plant height(R)* : 1.8 m
 - *Plant height (PR)* : 1.3 m
 - *Grain yield (R)* : 3.0 t ha-1
 - *Grain yield (PR)* : 2.8 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 25.9 cm
 - *Panicle length (PR)* : 25.3 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 9.7 cm
 - *Panicle exertion (PR)* : 7.7 cm
 - *Glume color (R)* : Red
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 35.06 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 124
2. **Restorers** : A1
3. **Pedigree** : {[(Bulk Y × CSV 4) × IS 9327-25] × (MB 7 × R 2796)}-5
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-12)** ☐
 - *Days to 50% flowering (R)* : 75 days
 - *Days to 50% flowering (PR)* : 93 days
 - *Plant height(R)* : 2.1 m
 - *Plant height (PR)* : 1.3 m
 - *Grain yield (R)* : 2.7 t ha-1
 - *Grain yield (PR)* : 4.0 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 26.0 cm
 - *Panicle length (PR)* : 22.1 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 4.3 cm
 - *Panicle exertion (PR)* : 7.3 cm
 - *Glume color (R)* : Red
 - *Glume color (PR)* : Purple
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 35.15 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/ Summer season
 - *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 137
2. **Restorers** : A1
3. **Pedigree** : [MR 836 × (CK 60B × IS 84)]-6-4-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 3.5 t ha⁻¹
- *Grain yield (PR)* : 4.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 35.2 cm
- *Panicle length (PR)* : 26.9 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 9.0 cm
- *Panicle exertion (PR)* : 12.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 28.45 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 138
2. **Restorers** : A1
3. **Pedigree** : [(148 × E 35-1)-4-2-4 × IS 17797]-3-4-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-12)**
 - *Days to 50% flowering (R)* : 68 days
 - *Days to 50% flowering (PR)* : 79 days
 - *Plant height(R)* : 1.7 m
 - *Plant height (PR)* : 1.3 m
 - *Grain yield (R)* : 3.2 t ha⁻¹
 - *Grain yield (PR)* : 3.1 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 30.6 cm
 - *Panicle length (PR)* : 25.6 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 8.0 cm
 - *Panicle exertion (PR)* : 13.0 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : Pearly white
 - *1000 – grain weight (PR)* : 34.25 g
 - *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 142
2. **Restorers** : A1
3. **Pedigree** : (FLR 101 × CSV 4)-1-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 66 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.8 t ha-1
- *Grain yield (PR)* : 3.5 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 23.8 cm
- *Panicle length (PR)* : 19.4 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 11.0 cm
- *Panicle exertion (PR)* : 14.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 33.23 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 148
2. **Restorers** : A1
3. **Pedigree** : Ind.Syn 458-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12) □

- *Days to 50% flowering (R)* : 73 days
- *Days to 50% flowering (PR)* : 95 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 2.0 t ha-1
- *Grain yield (PR)* : 1.6 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 23.8 cm
- *Panicle length (PR)* : 21.2 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 13.7 cm
- *Panicle exertion (PR)* : 10.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Green
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.50 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 151
2. **Restorers** : A1
3. **Pedigree** : (SC 108-3 × Diallel)-2-1-2-3-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 69 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 2.0 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 4.4 t ha⁻¹
- *Grain yield (PR)* : 3.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.4 cm
- *Panicle length (PR)* : 20.2 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 5.3 cm
- *Panicle exertion (PR)* : 15.3 cm
- *Glume color (R)* : Light Red
- *Glume color (PR)* : Green
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.20 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89007
2. **Restorers** : A1
3. **Pedigree** : [(C 89 × SPV 351) × MR 934]-13-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 66 days
- *Days to 50% flowering (PR)* : 82 days
- *Plant height (R)* : 1.7 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 3.4 t ha⁻¹
- *Grain yield (PR)* : 3.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.2 cm
- *Panicle length (PR)* : 22.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 11.3 cm
- *Panicle exertion (PR)* : 13.0 cm
- *Glume color (R)* : Light Red
- *Glume color (PR)* : Light Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 32.10 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89029
2. **Restorers** : A1
3. **Pedigree** : [(C 85-1 × SPV 475) × ICSB 12]-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 73 days
- *Days to 50% flowering (PR)* : 84 days
- *Plant height(R)* : 2.0 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 4.7 t ha⁻¹
- *Grain yield (PR)* : 3.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 32.4 cm
- *Panicle length (PR)* : 26.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 7.3 cm
- *Panicle exertion (PR)* : 10.0 cm
- *Glume color (R)* : Light Red
- *Glume color (PR)* : Brown
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 32.63 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89033
2. **Restorers** : A1
3. **Pedigree** : [(C 138 × SPV 475) × SPL 7R]-5-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 76 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 3.2 t ha⁻¹
- *Grain yield (PR)* : 3.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.2 cm
- *Panicle length (PR)* : 24.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 4.3 cm
- *Panicle exertion (PR)* : 17.0 cm
- *Glume color (R)* : Light Red
- *Glume color (PR)* : Purple
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 25.61 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89035
2. **Restorers** : A1
3. **Pedigree** : [C 58 × (SC 108-3 × CSV 4)-3-1]-5-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-12)**
 - *Days to 50% flowering (R)* : 61 days
 - *Days to 50% flowering (PR)* : 72 days
 - *Plant height(R)* : 1.4 m
 - *Plant height (PR)* : 1.1 m
 - *Grain yield (R)* : 3.4 t ha-1
 - *Grain yield (PR)* : 3.1 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 30.1 cm
 - *Panicle length (PR)* : 22.9 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 3.3 cm
 - *Panicle exertion (PR)* : 8.0 cm
 - *Glume color (R)* : Straw
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 33.49 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89036
2. **Restorers** : A1
3. **Pedigree** : [C 101 × (SC 108-3 × CSV 4)-3-1]-16-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 71 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 3.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.3 cm
- *Panicle length (PR)* : 23.2 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 6.0 cm
- *Panicle exertion (PR)* : 7.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 39.78 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89038
2. **Restorers** : A1
3. **Pedigree** : [(IS 3982 × SPV 351) × MR 942]-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 64 days
- *Days to 50% flowering (PR)* : 84 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.4 t ha⁻¹
- *Grain yield (PR)* : 3.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.2 cm
- *Panicle length (PR)* : 21.8 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 3.3 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.71 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89039
2. **Restorers** : A1
3. **Pedigree** : [(IS 931 × SPV 351) × MR 923]-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 65 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 3.2 t ha-1
- *Grain yield (PR)* : 2.8 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.9 cm
- *Panicle length (PR)* : 22.3 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Loose
- *Panicle exertion (R)* : 7.7 cm
- *Panicle exertion (PR)* : 7.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 30.27 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89044
2. **Restorers** : A1
3. **Pedigree** : [(IS 10450 × SPV 475) × MR 909]-6-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 62 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 3.0 t ha-1
- *Grain yield (PR)* : 3.5 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.2 cm
- *Panicle length (PR)* : 21.8 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 12.3 cm
- *Panicle exertion (PR)* : 14.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Pearly white
- *1000 – grain weight (PR)* : 28.09 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89050
2. **Restorers** : A1
3. **Pedigree** : (PM 6751 × ICSV 162)-9-1-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 64 days
- *Days to 50% flowering (PR)* : 82 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.5 t ha⁻¹
- *Grain yield (PR)* : 3.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.7 cm
- *Panicle length (PR)* : 20.9 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 4.0 cm
- *Panicle exertion (PR)* : 4.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 31.07 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89066
2. **Restorers** : A1
3. **Pedigree** : (PS 21194 × SPV 350)-3-1-2-3-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 67 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 1.7 t ha⁻¹
- *Grain yield (PR)* : 2.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.8 cm
- *Panicle length (PR)* : 20.3 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 4.0 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 27.48 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89067
2. **Restorers** : A1
3. **Pedigree** : (PM 6751 × ICSV 189)-11-2-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12) □

- *Days to 50% flowering (R)* : 74 days
- *Days to 50% flowering (PR)* : 87 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 3.5 t ha-1
- *Grain yield (PR)* : 3.9 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.3 cm
- *Panicle length (PR)* : 25.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 6.3 cm
- *Panicle exertion (PR)* : 5.3 cm
- *Glume color (R)* : Black
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 37.26 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89074
2. **Restorers** : A1
3. **Pedigree** : (20/75)-1-1-5-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 67 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 2.0 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 2.9 t ha-1
- *Grain yield (PR)* : 3.6 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.3 cm
- *Panicle length (PR)* : 23.3 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 7.0 cm
- *Panicle exertion (PR)* : 15.3 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 34.55 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 90014
2. **Restorers** : A1
3. **Pedigree** : (PM 14403-1 × MR 855)-5-3-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 71 days
- *Days to 50% flowering (PR)* : 85 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 3.0 t ha-1
- *Grain yield (PR)* : 3.6 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.9 cm
- *Panicle length (PR)* : 22.6 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 3.0 cm
- *Panicle exertion (PR)* : 4.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 24.78 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 90015
2. **Restorers** : A1
3. **Pedigree** : (PM 14415-1-1 × A 3201)-19-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 71 days
- *Days to 50% flowering (PR)* : 86 days
- *Plant height(R)* : 2.1 m
- *Plant height (PR)* : 1.6 m
- *Grain yield (R)* : 2.6 t ha-1
- *Grain yield (PR)* : 3.7 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 22.7 cm
- *Panicle length (PR)* : 17.9 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 9.3 cm
- *Panicle exertion (PR)* : 14.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 33.32 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 90025
2. **Restorers** : A1
3. **Pedigree** : (PS 14413 × ICSV 112)-1-1-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-12)**
 - *Days to 50% flowering (R)* : 69 days
 - *Days to 50% flowering (PR)* : 78 days
 - *Plant height(R)* : 2.5 m
 - *Plant height (PR)* : 2.0 m
 - *Grain yield (R)* : 2.8 t ha⁻¹
 - *Grain yield (PR)* : 1.9 t ha⁻¹
 - *Panicle shape (R)* : Broader in lower part
 - *Panicle shape (PR)* : Broader in lower part
 - *Panicle length (R)* : 23.2 cm
 - *Panicle length (PR)* : 18.2 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 4.0 cm
 - *Panicle exertion (PR)* : 9.7 cm
 - *Glume color (R)* : Purple
 - *Glume color (PR)* : Purple
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 33.11 g
 - *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91001
2. **Restorers** : A1
3. **Pedigree** : (IS 19474 × ICSP 1R MFR BK)-5-2-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 65 days
- *Days to 50% flowering (PR)* : 79 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.2 t ha-1
- *Grain yield (PR)* : 0.8 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.3 cm
- *Panicle length (PR)* : 24.4 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 20.0 cm
- *Panicle exertion (PR)* : 12.7 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 24.55 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91002
2. **Restorers** : A1
3. **Pedigree** : [(IS12573C×SC108-3)-16-2-1×(ICSP2B MFR Bk)]-1-6
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-12)**
 - *Days to 50% flowering (R)* : 67 days
 - *Days to 50% flowering (PR)* : 72 days
 - *Plant height(R)* : 1.5 m
 - *Plant height (PR)* : 1.1 m
 - *Grain yield (R)* : 2.9 t ha⁻¹
 - *Grain yield (PR)* : 1.9 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 29.3 cm
 - *Panicle length (PR)* : 21.0 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 0.0 cm
 - *Panicle exertion (PR)* : 8.7 cm
 - *Glume color (R)* : Purple
 - *Glume color (PR)* : Purple
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 37.65 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91003
2. **Restorers** : A1
3. **Pedigree** : (IS 18551 × ICSP 1R MFR Bk)-6-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 69 days
- *Days to 50% flowering (PR)* : 94 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 3.0 t ha⁻¹
- *Grain yield (PR)* : 3.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.9 cm
- *Panicle length (PR)* : 26.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 16.7 cm
- *Panicle exertion (PR)* : 11.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.18 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91004
2. **Restorers** : A1
3. **Pedigree** : [(IS12573C × SC108-3)-16-2-1 × (ICSP 1R MFR BK)]-4-9
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-12)**
 - *Days to 50% flowering (R)* : 68 days
 - *Days to 50% flowering (PR)* : 82 days
 - *Plant height(R)* : 1.9 m
 - *Plant height (PR)* : 1.5 m
 - *Grain yield (R)* : 2.6 t ha⁻¹
 - *Grain yield (PR)* : 3.1 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 33.3 cm
 - *Panicle length (PR)* : 25.2 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 7.7 cm
 - *Panicle exertion (PR)* : 12.3 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 27.78 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Forage/Dual purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91021
2. **Restorers** : A1
3. **Pedigree** : [(DKV 3 × (ICSV 197 × DKV 3)]-2-5
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 66 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 3.7 t ha-1
- *Grain yield (PR)* : 3.6 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 30.4 cm
- *Panicle length (PR)* : 26.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 12.0 cm
- *Panicle exertion (PR)* : 12.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 33.21 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91022
2. **Restorers** : A1
3. **Pedigree** : (GPR 148 × 555)-Bulk-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 86 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 2.6 t ha⁻¹
- *Grain yield (PR)* : 3.9 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.7 cm
- *Panicle length (PR)* : 22.9 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 9.7 cm
- *Panicle exertion (PR)* : 9.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.24 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91029
2. **Restorers** : A1
3. **Pedigree** : (((IS 3443 × DJ 6514)-1-1-1-1-1) ×
(SC 108-3 × CS 3541)-19-1)-1-1-1-4
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-12)** ☐
 - *Days to 50% flowering (R)* : 66 days
 - *Days to 50% flowering (PR)* : 75 days
 - *Plant height(R)* : 1.6 m
 - *Plant height (PR)* : 1.2 m
 - *Grain yield (R)* : 3.8 t ha-1
 - *Grain yield (PR)* : 3.4 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 26.6 cm
 - *Panicle length (PR)* : 22.3 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 5.3 cm
 - *Panicle exertion (PR)* : 5.7 cm
 - *Glume color (R)* : Straw
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 27.74 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 92015
2. **Restorers** : A1
3. **Pedigree** : IS 3147
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-12)

- *Days to 50% flowering (R)* : 60 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height(R)* : 2.4 m
- *Plant height (PR)* : 1.9 m
- *Grain yield (R)* : 3.0 t ha⁻¹
- *Grain yield (PR)* : 3.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.3 cm
- *Panicle length (PR)* : 21.9 cm
- *Panicle type (R)* : Loose
- *Panicle type (PR)* : Loose
- *Panicle exertion (R)* : 18.7 cm
- *Panicle exertion (PR)* : 18.0 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Light brown
- *1000 – grain weight (PR)* : 25.77 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 8
2. **Restorers** : A1
3. **Pedigree** : [SC 170 × (SC 108-3 × 148)]-1-2-3-5
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 79 days
 - *Days to 50% flowering (PR)* : 91 days
 - *Plant height(R)* : 1.3 m
 - *Plant height (PR)* : 1.3 m
 - *Grain yield (R)* : 1.4 t ha⁻¹
 - *Grain yield (PR)* : 3.8 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 26.8 cm
 - *Panicle length (PR)* : 25.0 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 0.0 cm
 - *Panicle exertion (PR)* : 4.3 cm
 - *Glume color (R)* : Straw
 - *Glume color (PR)* : Yellow
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 31.60 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 21
2. **Restorers** : A1
3. **Pedigree** : [(SPV 35 × E 35-1)CSV 4]-16
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 76 days
- *Days to 50% flowering (PR)* : 91 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.6 t ha-1
- *Grain yield (PR)* : 4.0 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.7 cm
- *Panicle length (PR)* : 18.9 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 2.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 32.78 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 22
2. **Restorers** : A1
3. **Pedigree** : {[(SC 108-3 × CSV 4) × SC 110] × (SC 108-3 × 148)}-12-5
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 77 days
 - *Days to 50% flowering (PR)* : 89 days
 - *Plant height (R)* : 1.8 m
 - *Plant height (PR)* : 1.3 m
 - *Grain yield (R)* : 1.5 t ha⁻¹
 - *Grain yield (PR)* : 5.0 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 25.9 cm
 - *Panicle length (PR)* : 25.3 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 0.0 cm
 - *Panicle exertion (PR)* : 6.3 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 33.35 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 25
2. **Restorers** : A1
3. **Pedigree** : [ET 2039 deri × (SC 108-3 × 148)]
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 65 days
- *Days to 50% flowering (PR)* : 79 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.8 t ha-1
- *Grain yield (PR)* : 3.9 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 22.4 cm
- *Panicle length (PR)* : 17.6 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 8.0 cm
- *Panicle exertion (PR)* : 5.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 39.35 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 27
2. **Restorers** : A1
3. **Pedigree** : (IS 12645C × CSV 4)-6-1-4
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 75 days
- *Days to 50% flowering (PR)* : 87 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.3 t ha⁻¹
- *Grain yield (PR)* : 4.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.0 cm
- *Panicle length (PR)* : 21.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 10.0 cm
- *Panicle exertion (PR)* : 11.0 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.07 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 47
2. **Restorers** : A1
3. **Pedigree** : (IS 12611 × SC 108-3)-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 79 days
- *Days to 50% flowering (PR)* : 79 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.3 t ha-1
- *Grain yield (PR)* : 4.0 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.7 cm
- *Panicle length (PR)* : 21.1 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 0.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 35.14 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/ Postrainy/ Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 48
2. **Restorers** : A1
3. **Pedigree** : (IS 12611 × SC 108-3)-4-2-4-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 81 days
- *Days to 50% flowering (PR)* : 76 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.1 t ha-1
- *Grain yield (PR)* : 3.7 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.8 cm
- *Panicle length (PR)* : 20.3 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 3.0 cm
- *Panicle exertion (PR)* : 4.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 35.14 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/ Postrainy/ Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 50
2. **Restorers** : A1
3. **Pedigree** : (IS 12611 × SC 108-3)-4-2-4-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 82 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 1.9 t ha⁻¹
- *Grain yield (PR)* : 3.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 23.3 cm
- *Panicle length (PR)* : 20.1 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 2.7 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 41.65 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/ Postrainy/ Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 58
2. **Restorers** : A1
3. **Pedigree** : (SC 108-3 × 148)-18-4-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 74 days
- *Days to 50% flowering (PR)* : 85 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.4 t ha-1
- *Grain yield (PR)* : 2.6 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.2 cm
- *Panicle length (PR)* : 22.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 4.0 cm
- *Panicle exertion (PR)* : 5.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 34.87 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/ Postrainy/ Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 74
2. **Restorers** : A1
3. **Pedigree** : [(Bulk Y × 168) × CSV 4]-35-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 78 days
- *Days to 50% flowering (PR)* : 82 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 1.4 t ha⁻¹
- *Grain yield (PR)* : 2.9 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 17.4 cm
- *Panicle length (PR)* : 17.9 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 7.3 cm
- *Panicle exertion (PR)* : 8.7 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Light Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 31.63 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/ Postrainy/ Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 75
2. **Restorers** : A1
3. **Pedigree** : (IS 9530 × E 35-1)-2-3-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 74 days
- *Days to 50% flowering (PR)* : 87 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.4 t ha-1
- *Grain yield (PR)* : 3.4 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 22.9 cm
- *Panicle length (PR)* : 20.4 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 5.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 33.91 g
- *Grain shape (PR)* : Circular shape in b
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/ Postrainy/S
- *Economic product type* : Grain purpose hyb.



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 78
2. **Restorers** : A1
3. **Pedigree** : [(SC 108-3 × Swarna) × CSV 4]-12-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 77 days
- *Days to 50% flowering (PR)* : 88 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 1.1 t ha-1
- *Grain yield (PR)* : 3.5 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 21.1 cm
- *Panicle length (PR)* : 19.7 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 3.0 cm
- *Panicle exertion (PR)* : 1.7 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.16 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 83
2. **Restorers** : A1
3. **Pedigree** : [(2219B × Swarna) × CSV 4]-3-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 66 days
- *Days to 50% flowering (PR)* : 85 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.5 t ha⁻¹
- *Grain yield (PR)* : 4.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.9 cm
- *Panicle length (PR)* : 21.9 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 1.7 cm
- *Panicle exertion (PR)* : 4.3 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.72 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 84
2. **Restorers** : A1
3. **Pedigree** : [(Bulk Y × 165) × CSV 4]-30-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 81 days
- *Days to 50% flowering (PR)* : 89 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 2.4 t ha⁻¹
- *Grain yield (PR)* : 4.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 22.0 cm
- *Panicle length (PR)* : 19.4 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 8.0 cm
- *Panicle exertion (PR)* : 21.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 32.74 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91
2. **Restorers** : A1
3. **Pedigree** : [(SC 108-3 × 148) × (SC 423 × CSV 4)]-68-5
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 81 days
 - *Days to 50% flowering (PR)* : 97 days
 - *Plant height(R)* : 1.4 m
 - *Plant height (PR)* : 1.1 m
 - *Grain yield (R)* : 1.9 t ha-1
 - *Grain yield (PR)* : 4.5 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 20.1 cm
 - *Panicle length (PR)* : 19.7 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 2.0 cm
 - *Panicle exertion (PR)* : 5.0 cm
 - *Glume color (R)* : Green
 - *Glume color (PR)* : Green
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 23.32 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 92
2. **Restorers** : A1
3. **Pedigree** : (IS 9530 × E 35-1)-2-3-1-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 75 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 2.6 t ha-1
- *Grain yield (PR)* : 3.9 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.4 cm
- *Panicle length (PR)* : 22.0 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 6.3 cm
- *Panicle exertion (PR)* : 12.7 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 38.62 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 93
2. **Restorers** : A1
3. **Pedigree** : (SC 108-3 × 148)-8-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 74 days
- *Days to 50% flowering (PR)* : 82 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 1.9 t ha⁻¹
- *Grain yield (PR)* : 2.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.3 cm
- *Panicle length (PR)* : 20.3 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 7.7 cm
- *Panicle exertion (PR)* : 5.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 35.31 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 98
2. **Restorers** : A1
3. **Pedigree** : [(SC 108-3 × CSV 4) × 1807B]-3-4-4-4
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 76 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.6 t ha⁻¹
- *Grain yield (PR)* : 3.9 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.2 cm
- *Panicle length (PR)* : 24.3 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 5.7 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 26.72 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 100
2. **Restorers** : A1
3. **Pedigree** : [(IS 12611 × SC 170) × MR 841]-4-1-1-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 76 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 2.1 t ha⁻¹
- *Grain yield (PR)* : 2.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.6 cm
- *Panicle length (PR)* : 25.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 4.0 cm
- *Panicle exertion (PR)* : 14.7 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 31.10 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 102
2. **Restorers** : A1
3. **Pedigree** : [(148 × E 35-1)-4-1 × CSV 4]-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 75 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.6 t ha-1
- *Grain yield (PR)* : 4.0 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.1 cm
- *Panicle length (PR)* : 20.7 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 4.3 cm
- *Panicle exertion (PR)* : 11.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.95 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 115
2. **Restorers** : A1
3. **Pedigree** : (IS 20509 × SPV 471)-4-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 71 days
- *Days to 50% flowering (PR)* : 82 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 3.2 t ha⁻¹
- *Grain yield (PR)* : 4.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.9 cm
- *Panicle length (PR)* : 26.0 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 13.7 cm
- *Panicle exertion (PR)* : 19.7 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Brown
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.64 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 117
2. **Restorers** : A1
3. **Pedigree** : (E 36-1 × CSV 4)-5-19-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 75 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.9 t ha⁻¹
- *Grain yield (PR)* : 3.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.4 cm
- *Panicle length (PR)* : 21.6 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 1.0 cm
- *Panicle exertion (PR)* : 5.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 39.87 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 118
2. **Restorers** : A1
3. **Pedigree** : [SPV 475 × (IS 12611 × SC 108-3)]-4-8-4-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 82 days
 - *Days to 50% flowering (PR)* : 87 days
 - *Plant height(R)* : 1.6 m
 - *Plant height (PR)* : 1.5 m
 - *Grain yield (R)* : 2.1 t ha-1
 - *Grain yield (PR)* : 4.1 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 25.6 cm
 - *Panicle length (PR)* : 21.3 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 1.3 cm
 - *Panicle exertion (PR)* : 12.3 cm
 - *Glume color (R)* : Red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 26.85 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 119
2. **Restorers** : A1
3. **Pedigree** : [SPV 475 × (IS 12611 × SC 108-3)]-4-8-4-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 76 days
 - *Days to 50% flowering (PR)* : 80 days
 - *Plant height(R)* : 1.9 m
 - *Plant height (PR)* : 1.3 m
 - *Grain yield (R)* : 2.1 t ha⁻¹
 - *Grain yield (PR)* : 2.8 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 26.6 cm
 - *Panicle length (PR)* : 21.7 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 4.3 cm
 - *Panicle exertion (PR)* : 3.3 cm
 - *Glume color (R)* : Red
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 37.05 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 123
2. **Restorers** : A1
3. **Pedigree** : (SPV 351 × 77CS 771)-1-4
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 75 days
 - *Days to 50% flowering (PR)* : 82 days
 - *Plant height(R)* : 1.5 m
 - *Plant height (PR)* : 1.2 m
 - *Grain yield (R)* : 2.8 t ha-1
 - *Grain yield (PR)* : 4.3 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 29.9 cm
 - *Panicle length (PR)* : 27.4 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 8.3 cm
 - *Panicle exertion (PR)* : 12.0 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 33.53 g
 - *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 127
2. **Restorers** : A1
3. **Pedigree** : {MR 840 × [(2077B × IS 9327) × R 2797]}-15-3-4
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 74 days
 - *Days to 50% flowering (PR)* : 85 days
 - *Plant height(R)* : 1.8 m
 - *Plant height (PR)* : 1.4 m
 - *Grain yield (R)* : 3.3 t ha-1
 - *Grain yield (PR)* : 3.1 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 34.8 cm
 - *Panicle length (PR)* : 27.6 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 2.7 cm
 - *Panicle exertion (PR)* : 8.0 cm
 - *Glume color (R)* : Red
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 30.06 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 129
2. **Restorers** : A1
3. **Pedigree** : [(148 × E 35-1) × IS 9327 (MB 4 × R 2757)]-4-4
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 73 days
 - *Days to 50% flowering (PR)* : 82 days
 - *Plant height(R)* : 1.5 m
 - *Plant height (PR)* : 1.1 m
 - *Grain yield (R)* : 2.3 t ha-1
 - *Grain yield (PR)* : 4.2 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 22.9 cm
 - *Panicle length (PR)* : 22.1 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 5.3 cm
 - *Panicle exertion (PR)* : 8.0 cm
 - *Glume color (R)* : Purple
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 34.64 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 131
2. **Restorers** : A1
3. **Pedigree** : {PR 82A-137 × [(SPV 35 × E 35-1) × CSV 4]}-16-3-12
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 81 days
 - *Days to 50% flowering (PR)* : 81 days
 - *Plant height(R)* : 2.0 m
 - *Plant height (PR)* : 1.4 m
 - *Grain yield (R)* : 1.9 t ha⁻¹
 - *Grain yield (PR)* : 3.5 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 27.7 cm
 - *Panicle length (PR)* : 23.4 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 4.0 cm
 - *Panicle exertion (PR)* : 14.0 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 35.58 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 133
2. **Restorers** : A1
3. **Pedigree** : {IS 19614 × [(148 × E 35-1) × CSV 4]}-5-3-4-4
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 74 days
 - *Days to 50% flowering (PR)* : 85 days
 - *Plant height(R)* : 1.5 m
 - *Plant height (PR)* : 1.2 m
 - *Grain yield (R)* : 3.0 t ha-1
 - *Grain yield (PR)* : 3.1 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 28.1 cm
 - *Panicle length (PR)* : 25.3 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 3.3 cm
 - *Panicle exertion (PR)* : 7.7 cm
 - *Glume color (R)* : Red
 - *Glume color (PR)* : Purple
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 32.72 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 136
2. **Restorers** : A1
3. **Pedigree** : (SPV 475 × IN 15-2)-5-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 74 days
- *Days to 50% flowering (PR)* : 86 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 2.0 t ha⁻¹
- *Grain yield (PR)* : 4.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.4 cm
- *Panicle length (PR)* : 19.6 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 6.7 cm
- *Panicle exertion (PR)* : 8.3 cm
- *Glume color (R)* : Yellow
- *Glume color (PR)* : Yellow
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 38.00 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 141
2. **Restorers** : A1
3. **Pedigree** : (FLR 101 × IS 1082)-4-5-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 74 days
- *Days to 50% flowering (PR)* : 91 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.2 t ha-1
- *Grain yield (PR)* : 4.3 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.1 cm
- *Panicle length (PR)* : 20.4 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 7.0 cm
- *Panicle exertion (PR)* : 8.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 32.20 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 145
2. **Restorers** : A1
3. **Pedigree** : (CSV 4 × GG × 370)-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 76 days
- *Days to 50% flowering (PR)* : 70 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 2.6 t ha⁻¹
- *Grain yield (PR)* : 3.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.2 cm
- *Panicle length (PR)* : 19.4 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 6.7 cm
- *Panicle exertion (PR)* : 13.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.17 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 146
2. **Restorers** : A1
3. **Pedigree** : (CSV 4 × GG × 370)-2-1-1-6-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 79 days
- *Days to 50% flowering (PR)* : 87 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.7 t ha-1
- *Grain yield (PR)* : 4.5 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 21.7 cm
- *Panicle length (PR)* : 22.6 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 6.0 cm
- *Panicle exertion (PR)* : 7.7 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.32 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 147
2. **Restorers** : A1
3. **Pedigree** : Ind.Syn 182-2-4-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 79 days
- *Plant height(R)* : 3.0 m
- *Plant height (PR)* : 1.8 m
- *Grain yield (R)* : 2.5 t ha⁻¹
- *Grain yield (PR)* : 2.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 22.1 cm
- *Panicle length (PR)* : 16.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 6.0 cm
- *Panicle exertion (PR)* : 9.3 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 39.03 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *. *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 154
2. **Restorers** : A1
3. **Pedigree** : (IS 3443 × DJ 6514)-1-1-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 78 days
- *Plant height(R)* : 2.3 m
- *Plant height (PR)* : 1.7 m
- *Grain yield (R)* : 3.5 t ha-1
- *Grain yield (PR)* : 3.1 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 21.6 cm
- *Panicle length (PR)* : 15.3 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 8.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 25.97 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 155
2. **Restorers** : A1
3. **Pedigree** : (PM 11344 × SPV 351)-17-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 67 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height(R)* : 2.1 m
- *Plant height (PR)* : 1.7 m
- *Grain yield (R)* : 3.0 t ha-1
- *Grain yield (PR)* : 2.4 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.4 cm
- *Panicle length (PR)* : 17.4 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 2.7 cm
- *Panicle exertion (PR)* : 5.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 27.71 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 160
2. **Restorers** : A1
3. **Pedigree** : [(IS 12622C × 555) × (IS 3612C × 2219B)-5-1 × E 35-1]
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 74 days
 - *Days to 50% flowering (PR)* : 76 days
 - *Plant height (R)* : 2.0 m
 - *Plant height (PR)* : 1.3 m
 - *Grain yield (R)* : 3.2 t ha⁻¹
 - *Grain yield (PR)* : 3.3 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 31.2 cm
 - *Panicle length (PR)* : 22.7 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 6.7 cm
 - *Panicle exertion (PR)* : 5.7 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 29.97 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 166
2. **Restorers** : A1
3. **Pedigree** : {F5 s × [18-83 × (SC 423 × CSV 4)-47]}-2-1-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 79 days
- *Days to 50% flowering (PR)* : 92 days
- *Plant height(R)* : 2.0 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 3.7 t ha⁻¹
- *Grain yield (PR)* : 5.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 31.3 cm
- *Panicle length (PR)* : 25.4 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 7.3 cm
- *Panicle exertion (PR)* : 13.0 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Green
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 32.78 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 171
2. **Restorers** : A1
3. **Pedigree** : (D 93070 × F5 s)-1-1-1-1-1-4
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 79 days
- *Days to 50% flowering (PR)* : 91 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 2.5 t ha⁻¹
- *Grain yield (PR)* : 2.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.0 cm
- *Panicle length (PR)* : 21.2 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 12.3 cm
- *Panicle exertion (PR)* : 13.7 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 44.10 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 179
2. **Restorers** : A1
3. **Pedigree** : [(VZM 1B × SPV 104)-13 × (DH 524 × IS 2328)]-4-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 80 days
 - *Days to 50% flowering (PR)* : 86 days
 - *Plant height(R)* : 2.4 m
 - *Plant height (PR)* : 1.6 m
 - *Grain yield (R)* : 1.3 t ha⁻¹
 - *Grain yield (PR)* : 2.3 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 28.8 cm
 - *Panicle length (PR)* : 22.9 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 12.0 cm
 - *Panicle exertion (PR)* : 13.7 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 37.32 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 181
2. **Restorers** : A1
3. **Pedigree** : [(3-60 × SPV 105) × Swarna-3-1]-1-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 81 days
- *Days to 50% flowering (PR)* : 88 days
- *Plant height(R)* : 2.2 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 1.8 t ha⁻¹
- *Grain yield (PR)* : 2.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.3 cm
- *Panicle length (PR)* : 22.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 6.0 cm
- *Panicle exertion (PR)* : 2.7 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 38.77 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 186
2. **Restorers** : A1
3. **Pedigree** : [(E 35-1 × 13-35) × (SC 108-3 × CSV 4) × E 12-5]-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 75 days
 - *Days to 50% flowering (PR)* : 84 days
 - *Plant height(R)* : 2.8 m
 - *Plant height (PR)* : 2.0 m
 - *Grain yield (R)* : 3.8 t ha⁻¹
 - *Grain yield (PR)* : 2.4 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 19.0 cm
 - *Panicle length (PR)* : 18.6 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 11.7 cm
 - *Panicle exertion (PR)* : 14.7 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 41.50 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89003
2. **Restorers** : A1
3. **Pedigree** : [(C 138 × SPV 475) × SPL 7R]-5-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 77 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 3.9 t ha⁻¹
- *Grain yield (PR)* : 4.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 36.1 cm
- *Panicle length (PR)* : 26.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 11.7 cm
- *Panicle exertion (PR)* : 9.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 27.04 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89011
2. **Restorers** : A1
3. **Pedigree** : (C 101 × SPV 351)-14-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 66 days
- *Days to 50% flowering (PR)* : 70 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.6 t ha⁻¹
- *Grain yield (PR)* : 2.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.1 cm
- *Panicle length (PR)* : 23.9 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 12.0 cm
- *Panicle exertion (PR)* : 13.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 40.70 g
- *Grain shape (PR)* : Circular shape in b
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/Su
- *Economic product type* : Grain purpose hybr



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89021
2. **Restorers** : A1
3. **Pedigree** : [(C 138 × SPV 475) × SPL 7R]-5-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 77 days
- *Days to 50% flowering (PR)* : 82 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 3.6 t ha-1
- *Grain yield (PR)* : 4.0 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.7 cm
- *Panicle length (PR)* : 24.7 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 6.0 cm
- *Panicle exertion (PR)* : 6.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 25.97 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89023
2. **Restorers** : A1
3. **Pedigree** : [(C 138 × SPV 475) × SPL 7R]-5-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 76 days
 - *Days to 50% flowering (PR)* : 76 days
 - *Plant height(R)* : 1.8 m
 - *Plant height (PR)* : 1.3 m
 - *Grain yield (R)* : 2.0 t ha-1
 - *Grain yield (PR)* : 3.3 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 32.2 cm
 - *Panicle length (PR)* : 23.2 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 17.7 cm
 - *Panicle exertion (PR)* : 16.7cm
 - *Glume color (R)* : Red
 - *Glume color (PR)* : Purple
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 27.05 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89046
2. **Restorers** : A1
3. **Pedigree** : (PM 11344 × SPV 351)-1-1-1-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 72 days
- *Days to 50% flowering (PR)* : 75 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 3.3 t ha-1
- *Grain yield (PR)* : 3.4 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.4 cm
- *Panicle length (PR)* : 20.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 2.0 cm
- *Panicle exertion (PR)* : 3.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Brown
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 22.68 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89047
2. **Restorers** : A1
3. **Pedigree** : (PM 11344 × SPV 351)-6-8-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 84 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 3.5 t ha-1
- *Grain yield (PR)* : 2.1 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.6 cm
- *Panicle length (PR)* : 22.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 2.3 cm
- *Panicle exertion (PR)* : 6.7 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.65 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89048
2. **Restorers** : A1
3. **Pedigree** : (PM 6751 × ICSV 102)-12-2-3-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 67 days
- *Days to 50% flowering (PR)* : 79 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 2.3 t ha-1
- *Grain yield (PR)* : 3.1 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.7 cm
- *Panicle length (PR)* : 23.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 6.7 cm
- *Panicle exertion (PR)* : 14.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 23.09 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89049
2. **Restorers** : A1
3. **Pedigree** : (PM 6751 × ICSV 162)-2-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 71 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height(R)* : 2.6 m
- *Plant height (PR)* : 1.9 m
- *Grain yield (R)* : 2.7 t ha-1
- *Grain yield (PR)* : 3.0 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.9 cm
- *Panicle length (PR)* : 20.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 13.7 cm
- *Panicle exertion (PR)* : 19.7 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.66 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89051
2. **Restorers** : A1
3. **Pedigree** : (PM 7322 × ICSV 166)-18-1-3-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 71 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 3.5 t ha-1
- *Grain yield (PR)* : 3.8 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 23.3 cm
- *Panicle length (PR)* : 17.8 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 2.0 cm
- *Panicle exertion (PR)* : 5.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.07 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89054
2. **Restorers** : A1
3. **Pedigree** : (PM 7526 × R 3069)-1-4-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 71 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 2.3 m
- *Plant height (PR)* : 1.9 m
- *Grain yield (R)* : 3.2 t ha⁻¹
- *Grain yield (PR)* : 4.0 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.6 cm
- *Panicle length (PR)* : 24.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 4.0 cm
- *Panicle exertion (PR)* : 4.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 25.01 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89057
2. **Restorers** : A1
3. **Pedigree** : (PM 11344 × R 2961)-3-11-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 73 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 2.1 m
- *Plant height (PR)* : 1.5 m
- *Grain yield (R)* : 1.9 t ha-1
- *Grain yield (PR)* : 3.5 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.2 cm
- *Panicle length (PR)* : 21.4 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 4.0 cm
- *Panicle exertion (PR)* : 4.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.56 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89061
2. **Restorers** : A1
3. **Pedigree** : (PS 21303 × SPV 386)-1-3-2-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 77 days
- *Days to 50% flowering (PR)* : 84 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.0 t ha-1
- *Grain yield (PR)* : 4.0 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.8 cm
- *Panicle length (PR)* : 23.9 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 3.7 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 32.04 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89069
2. **Restorers** : A1
3. **Pedigree** : (PM 7032 × ICSB 3)-4-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 77 days
- *Days to 50% flowering (PR)* : 87 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.9 t ha-1
- *Grain yield (PR)* : 4.0 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 22.1 cm
- *Panicle length (PR)* : 20.1 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 3.3 cm
- *Panicle exertion (PR)* : 6.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 21.57 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89073
2. **Restorers** : A1
3. **Pedigree** : (PS 19881-1 × SPV 394)-1-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 69 days
- *Days to 50% flowering (PR)* : 79 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.9 t ha-1
- *Grain yield (PR)* : 2.8 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.0 cm
- *Panicle length (PR)* : 19.2 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 11.7 cm
- *Panicle exertion (PR)* : 11.0 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Green
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 26.24 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 90001
2. **Restorers** : A1
3. **Pedigree** : [(C 138 × ICSV 112) × SPL 7R]-4-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 77 days
- *Days to 50% flowering (PR)* : 89 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.3 t ha⁻¹
- *Grain yield (PR)* : 5.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.4 cm
- *Panicle length (PR)* : 22.6 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 1.7 cm
- *Panicle exertion (PR)* : 6.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 24.14 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 90005
2. **Restorers** : A1
3. **Pedigree** : [(C 138 × ICSV 112) × SPL 7R]-5-3-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 77 days
- *Days to 50% flowering (PR)* : 88 days
- *Plant height (R)* : 1.5 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 4.3 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 35.4 cm
- *Panicle length (PR)* : 29.8 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 9.3 cm
- *Panicle exertion (PR)* : 7.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 26.24 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 90008
2. **Restorers** : A1
3. **Pedigree** : (PS 14413 × ICSV 112)-1-5-2-1-4
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 76 days
- *Days to 50% flowering (PR)* : 86 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 2.6 t ha⁻¹
- *Grain yield (PR)* : 3.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.4 cm
- *Panicle length (PR)* : 24.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 6.0 cm
- *Panicle exertion (PR)* : 7.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 25.31 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 90009
2. **Restorers** : A1
3. **Pedigree** : (PM 6751 × SPV 615)-7-2-1-2-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 70 days
 - *Days to 50% flowering (PR)* : 74 days
 - *Plant height(R)* : 1.7 m
 - *Plant height (PR)* : 1.2 m
 - *Grain yield (R)* : 3.3 t ha⁻¹
 - *Grain yield (PR)* : 4.1 t ha⁻¹
 - *Panicle shape (R)* : Broader in lower part
 - *Panicle shape (PR)* : Broader in lower part
 - *Panicle length (R)* : 26.1 cm
 - *Panicle length (PR)* : 18.7 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 1.3 cm
 - *Panicle exertion (PR)* : 4.3 cm
 - *Glume color (R)* : Purple
 - *Glume color (PR)* : Purple
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 26.67 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 90010
2. **Restorers** : A1
3. **Pedigree** : (PM 6751 × ICSV 102)-2-1-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 76 days
- *Days to 50% flowering (PR)* : 86 days
- *Plant height(R)* : 2.0 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 2.0 t ha⁻¹
- *Grain yield (PR)* : 3.9 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.2 cm
- *Panicle length (PR)* : 22.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 5.3 cm
- *Panicle exertion (PR)* : 9.7 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Purple
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 25.53 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 90011
2. **Restorers** : A1
3. **Pedigree** : (PM 6751 × ICSV 102)-2-1-1-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 73 days
- *Days to 50% flowering (PR)* : 85 days
- *Plant height(R)* : 2.1 m
- *Plant height (PR)* : 1.5 m
- *Grain yield (R)* : 2.8 t ha-1
- *Grain yield (PR)* : 5.0 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.1 cm
- *Panicle length (PR)* : 26.4 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 4.7 cm
- *Panicle exertion (PR)* : 3.7 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 25.14 g
- *Grain shape (PR)* : Circular shape in b
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer sea
- *Economic product type* : Forage/Dual purpo



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 90012
2. **Restorers** : A1
3. **Pedigree** : (ICSV 197 × R 2961)-3-11-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 76 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 2.0 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 2.1 t ha⁻¹
- *Grain yield (PR)* : 3.0 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 23.2 cm
- *Panicle length (PR)* : 20.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 3.7 cm
- *Panicle exertion (PR)* : 7.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.37 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 90016
2. **Restorers** : A1
3. **Pedigree** : (PM 14403-1 × MR 855)-10-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 80 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height(R)* : 2.1 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 1.4 t ha⁻¹
- *Grain yield (PR)* : 4.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 21.3 cm
- *Panicle length (PR)* : 17.3 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 5.0 cm
- *Panicle exertion (PR)* : 12.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Pearly white
- *1000 – grain weight (PR)* : 33.50 g
- *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 90020
2. **Restorers** : A1
3. **Pedigree** : (PS 14413 × ICSV 112)-2-2-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 72 days
- *Days to 50% flowering (PR)* : 76 days
- *Plant height(R)* : 2.9 m
- *Plant height (PR)* : 2.0 m
- *Grain yield (R)* : 2.8 t ha⁻¹
- *Grain yield (PR)* : 1.0 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.2 cm
- *Panicle length (PR)* : 21.2 cm
- *Panicle type (R)* : Loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 7.3 cm
- *Panicle exertion (PR)* : 12.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.94 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 90021
2. **Restorers** : A1
3. **Pedigree** : (PS 21310 × A 7045)-5-3-6-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 73 days
- *Days to 50% flowering (PR)* : 79 days
- *Plant height(R)* : 2.3 m
- *Plant height (PR)* : 1.5 m
- *Grain yield (R)* : 2.4 t ha⁻¹
- *Grain yield (PR)* : 2.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 19.7 cm
- *Panicle length (PR)* : 17.4 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 19.7 cm
- *Panicle exertion (PR)* : 21.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 32.90 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 90022
2. **Restorers** : A1
3. **Pedigree** : (PS 14413 × ICSV 112)-3-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 73 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height(R)* : 2.7 m
- *Plant height (PR)* : 1.6 m
- *Grain yield (R)* : 3.2 t ha⁻¹
- *Grain yield (PR)* : 2.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 23.1 cm
- *Panicle length (PR)* : 18.8 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 3.3 cm
- *Panicle exertion (PR)* : 4.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 37.23 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 90023
2. **Restorers** : A1
3. **Pedigree** : (PS 19881-1 × SPV 394)-1-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 68 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.6 t ha-1
- *Grain yield (PR)* : 2.6 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.2 cm
- *Panicle length (PR)* : 19.4 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 9.0 cm
- *Panicle exertion (PR)* : 3.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 32.58 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 90024
2. **Restorers** : A1
3. **Pedigree** : (PS 19881-1 × SPV 394)-1-1-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 66 days
- *Days to 50% flowering (PR)* : 75 days
- *Plant height(R)* : 1.3 m
- *Plant height (PR)* : 1.0 m
- *Grain yield (R)* : 2.0 t ha⁻¹
- *Grain yield (PR)* : 2.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.6 cm
- *Panicle length (PR)* : 21.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 9.7 cm
- *Panicle exertion (PR)* : 9.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 26.10 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 90026
2. **Restorers** : A1
3. **Pedigree** : (PS 19881 × R 11941)-11-1-3-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 73 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.0 t ha-1
- *Grain yield (PR)* : 3.7 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 31.2 cm
- *Panicle length (PR)* : 25.0 cm
- *Panicle type (R)* : Loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 9.7 cm
- *Panicle exertion (PR)* : 8.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.15 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 90028
2. **Restorers** : A1
3. **Pedigree** : (PS 21303 × SPV 386)-1-3-2-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 78 days
- *Days to 50% flowering (PR)* : 85 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 2.2 t ha⁻¹
- *Grain yield (PR)* : 3.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.8 cm
- *Panicle length (PR)* : 21.2 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 2.3 cm
- *Panicle exertion (PR)* : 10.0 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.26 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91005
2. **Restorers** : A1
3. **Pedigree** : (IS 12664C × ICSP 1R MFR BK)-1-1-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 69 days
- *Days to 50% flowering (PR)* : 90 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 1.9 t ha-1
- *Grain yield (PR)* : 4.3 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.9 cm
- *Panicle length (PR)* : 27.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 2.7 cm
- *Panicle exertion (PR)* : 4.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 40.78 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91007
2. **Restorers** : A1
3. **Pedigree** : [(SPV 475 × (ICSV 197 × SPV 475)]-2-3-1-1-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 74 days
- *Days to 50% flowering (PR)* : 76 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 1.9 t ha-1
- *Grain yield (PR)* : 3.0 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.6 cm
- *Panicle length (PR)* : 22.3 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 4.7 cm
- *Panicle exertion (PR)* : 8.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.09 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91008
2. **Restorers** : A1
3. **Pedigree** : (IS 12664C × ICSP 1R MFR BK)-8-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 73 days
- *Days to 50% flowering (PR)* : 75 days
- *Plant height(R)* : 2.0 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 2.5 t ha⁻¹
- *Grain yield (PR)* : 4.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.3 cm
- *Panicle length (PR)* : 20.9 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 4.7 cm
- *Panicle exertion (PR)* : 6.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 23.98 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91009
2. **Restorers** : A1
3. **Pedigree** : (IS 12664C × ICSP 1R MFR BK)-8-2-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 72 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 1.2 m
- *Plant height (PR)* : 0.9 m
- *Grain yield (R)* : 1.9 t ha⁻¹
- *Grain yield (PR)* : 3.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.0 cm
- *Panicle length (PR)* : 20.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 6.0 cm
- *Panicle exertion (PR)* : 4.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 40.59 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91010
2. **Restorers** : A1
3. **Pedigree** : [(20-67 × SB 1067)-4-1 × (SPV 475)]-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 78 days
- *Days to 50% flowering (PR)* : 86 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 3.5 t ha-1
- *Grain yield (PR)* : 4.8 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.9 cm
- *Panicle length (PR)* : 23.1 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 3.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 31.26 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91013
2. **Restorers** : A1
3. **Pedigree** : [(DKV 3 × (ICSV 197 × DKV 3)]-2-5
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 75 days
- *Days to 50% flowering (PR)* : 95 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.8 t ha-1
- *Grain yield (PR)* : 3.9 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.8 cm
- *Panicle length (PR)* : 24.1 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 10.0 cm
- *Panicle exertion (PR)* : 11.0 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.94 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91018
2. **Restorers** : A1
3. **Pedigree** : [(SPV 105 × ICSV 1)-1-1-4 × PB 10858]-5-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 76 days
 - *Days to 50% flowering (PR)* : 79 days
 - *Plant height(R)* : 1.8 m
 - *Plant height (PR)* : 1.2 m
 - *Grain yield (R)* : 3.1 t ha⁻¹
 - *Grain yield (PR)* : 4.4 t ha⁻¹
 - *Panicle shape (R)* : Broader in lower part
 - *Panicle shape (PR)* : Broader in lower part
 - *Panicle length (R)* : 17.6 cm
 - *Panicle length (PR)* : 14.9 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 2.0 cm
 - *Panicle exertion (PR)* : 3.3 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 33.15 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91019
2. **Restorers** : A1
3. **Pedigree** : [(M 35-1 × M 1009)-2-1 × F5-6)-5-3-2 × SPV475)]-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 75 days
 - *Days to 50% flowering (PR)* : 92 days
 - *Plant height(R)* : 1.7 m
 - *Plant height (PR)* : 1.3 m
 - *Grain yield (R)* : 2.6 t ha-1
 - *Grain yield (PR)* : 4.1 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 27.1 cm
 - *Panicle length (PR)* : 23.8 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 9.3 cm
 - *Panicle exertion (PR)* : 13.0 cm
 - *Glume color (R)* : Straw
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 28.51 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91020
2. **Restorers** : A1
3. **Pedigree** : (SPV 475 × DKV 74)-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 81 days
- *Days to 50% flowering (PR)* : 84 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 2.0 t ha-1
- *Grain yield (PR)* : 5.2 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.6 cm
- *Panicle length (PR)* : 25.7 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 3.0 cm
- *Panicle exertion (PR)* : 7.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 31.90 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91023
2. **Restorers** : A1
3. **Pedigree** : ((RS/R × EN 3257-4)-1-5-1-1-6-1-1-1 ×
(SC 108-3 × CS 3541)-19-1)-3-1-2-3-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 70 days
 - *Days to 50% flowering (PR)* : 76 days
 - *Plant height(R)* : 1.2 m
 - *Plant height (PR)* : 1.0 m
 - *Grain yield (R)* : 2.4 t ha⁻¹
 - *Grain yield (PR)* : 2.7 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 23.7 cm
 - *Panicle length (PR)* : 18.6 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 3.0 cm
 - *Panicle exertion (PR)* : 2.7 cm
 - *Glume color (R)* : Green
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 25.87 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91025
2. **Restorers** : A1
3. **Pedigree** : ((Bulk Y × CS 3541)-25-1-1-3B × (IS 1054 × Late Pop Bulk)-2-2-1-1-6-1-1)-17-2-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 80 days
 - *Days to 50% flowering (PR)* : 96 days
 - *Plant height(R)* : 1.6 m
 - *Plant height (PR)* : 1.3 m
 - *Grain yield (R)* : 2.4 t ha-1
 - *Grain yield (PR)* : 6.3 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 21.6 cm
 - *Panicle length (PR)* : 19.8 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 2.0 cm
 - *Panicle exertion (PR)* : 7.0 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 28.19 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91026
2. **Restorers** : A1
3. **Pedigree** : (((IS 3443 × DJ 6514)-1-1-1-1-1) ×
(E 35-1 × Rs/B 394)-1-1-2)-1-1-2-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 74 days
 - *Days to 50% flowering (PR)* : 88 days
 - *Plant height(R)* : 2.5 m
 - *Plant height (PR)* : 2.1 m
 - *Grain yield (R)* : 1.9 t ha-1
 - *Grain yield (PR)* : 3.0 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 21.4 cm
 - *Panicle length (PR)* : 20.1 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 11.7 cm
 - *Panicle exertion (PR)* : 13.0 cm
 - *Glume color (R)* : Red
 - *Glume color (PR)* : Purple
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 25.45 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91028
2. **Restorers** : A1
3. **Pedigree** : (((IS 3443 × DJ 6514)-1-1-1-1-1) ×
(E 35-1 × US/B 487)-2-1-4-1-1-3)-8-2-1-4-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 73 days
 - *Days to 50% flowering (PR)* : 79 days
 - *Plant height(R)* : 2.4 m
 - *Plant height (PR)* : 1.6 m
 - *Grain yield (R)* : 2.1 t ha-1
 - *Grain yield (PR)* : 2.7 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 21.8 cm
 - *Panicle length (PR)* : 17.6 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 5.7 cm
 - *Panicle exertion (PR)* : 7.0 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 31.77 g
 - *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Forage/Dual
purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91030
2. **Restorers** : A1
3. **Pedigree** : (((IS 3443 × DJ 6514)-1-1-1-1-1) ×
(SC 108-3 × CS 3541)-19-1)-17-3-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 74 days
 - *Days to 50% flowering (PR)* : 83 days
 - *Plant height(R)* : 1.6 m
 - *Plant height (PR)* : 1.1 m
 - *Grain yield (R)* : 3.0 t ha-1
 - *Grain yield (PR)* : 4.4 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 25.8 cm
 - *Panicle length (PR)* : 21.3 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 2.7 cm
 - *Panicle exertion (PR)* : 3.3 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 26.26 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91031
2. **Restorers** : A1
3. **Pedigree** : (SC 108-4-8 × CS 3541)-88
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 73 days
- *Days to 50% flowering (PR)* : 87 days
- *Plant height(R)* : 2.2 m
- *Plant height (PR)* : 1.6 m
- *Grain yield (R)* : 3.6 t ha⁻¹
- *Grain yield (PR)* : 3.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.3 cm
- *Panicle length (PR)* : 20.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 4.0 cm
- *Panicle exertion (PR)* : 12.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 32.36 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91032
2. **Restorers** : A1
3. **Pedigree** : (IS 1082 × SC 108-3)-1-1-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 82 days
 - *Days to 50% flowering (PR)* : 84 days
 - *Plant height(R)* : 3.1 m
 - *Plant height (PR)* : 2.1 m
 - *Grain yield (R)* : 1.3 t ha⁻¹
 - *Grain yield (PR)* : 3.4 t ha⁻¹
 - *Panicle shape (R)* : Broader in lower part
 - *Panicle shape (PR)* : Broader in lower part
 - *Panicle length (R)* : 19.4 cm
 - *Panicle length (PR)* : 14.4 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 0.0 cm
 - *Panicle exertion (PR)* : 6.3 cm
 - *Glume color (R)* : Red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 32.58 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 91033
2. **Restorers** : A1
3. **Pedigree** : Mali-sor-84-7
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 72 days
- *Days to 50% flowering (PR)* : 86 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 3.1 t ha⁻¹
- *Grain yield (PR)* : 2.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 26.7 cm
- *Panicle length (PR)* : 21.1 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 1.0 cm
- *Panicle exertion (PR)* : 1.7 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 31.50 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 92005
2. **Restorers** : A1
3. **Pedigree** : [(ICSV 234×IS 20509)×(IS12611×SC108-3)]-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 75 days
- *Days to 50% flowering (PR)* : 96 days
- *Plant height(R)* : 2.1 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 2.6 t ha⁻¹
- *Grain yield (PR)* : 2.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 35.6 cm
- *Panicle length (PR)* : 25.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 5.0 cm
- *Panicle exertion (PR)* : 5.7 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 24.37 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 92007
2. **Restorers** : A1
3. **Pedigree** : [E×P 32/1 ×((IS 10927 ×UChV2) ×CSV 4)-5]-3-5
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 76 days
 - *Days to 50% flowering (PR)* : 77 days
 - *Plant height(R)* : 1.9 m
 - *Plant height (PR)* : 1.3 m
 - *Grain yield (R)* : 2.8 t ha-1
 - *Grain yield (PR)* : 4.0 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 27.3 cm
 - *Panicle length (PR)* : 22.6 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 0.0 cm
 - *Panicle exertion (PR)* : 3.7 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 28.99 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 92008
2. **Restorers** : A1
3. **Pedigree** : (PM 6751 × ICSV 102)-2-1-1-1-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 73 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 2.8 t ha⁻¹
- *Grain yield (PR)* : 4.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 33.7 cm
- *Panicle length (PR)* : 27.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 7.0 cm
- *Panicle exertion (PR)* : 10.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 33.83 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 92009
2. **Restorers** : A1
3. **Pedigree** : (PM 7322 × ICSV 166)-18-1-3-1-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 73 days
 - *Days to 50% flowering (PR)* : 80 days
 - *Plant height(R)* : 1.4 m
 - *Plant height (PR)* : 1.0 m
 - *Grain yield (R)* : 2.3 t ha-1
 - *Grain yield (PR)* : 2.8 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 25.9 cm
 - *Panicle length (PR)* : 19.3 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 7.7 cm
 - *Panicle exertion (PR)* : 4.3 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 24.10 g
 - *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 92010
2. **Restorers** : A1
3. **Pedigree** : [(SPV 475 × ICSV 197) × SPV 475]-10-4
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 73 days
 - *Days to 50% flowering (PR)* : 74 days
 - *Plant height(R)* : 1.8 m
 - *Plant height (PR)* : 1.2 m
 - *Grain yield (R)* : 3.1 t ha⁻¹
 - *Grain yield (PR)* : 3.0 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 26.8 cm
 - *Panicle length (PR)* : 20.1 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 3.0 cm
 - *Panicle exertion (PR)* : 5.0 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Straw
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 26.52 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 92011
2. **Restorers** : A1
3. **Pedigree** : (ICSV 197 × ICSP 2B MFR BK)-9-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 76 days
- *Plant height(R)* : 1.8 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 3.4 t ha-1
- *Grain yield (PR)* : 3.2 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 25.1 cm
- *Panicle length (PR)* : 19.6 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 7.3 cm
- *Panicle exertion (PR)* : 5.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 26.25 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 92012
2. **Restorers** : A1
3. **Pedigree** : [(IS 23493 × SPV 351) × (MR 940)]-8-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 69 days
 - *Days to 50% flowering (PR)* : 78 days
 - *Plant height(R)* : 1.6 m
 - *Plant height (PR)* : 1.2 m
 - *Grain yield (R)* : 2.7 t ha-1
 - *Grain yield (PR)* : 4.1 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 30.6 cm
 - *Panicle length (PR)* : 23.0 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 4.0 cm
 - *Panicle exertion (PR)* : 5.7 cm
 - *Glume color (R)* : Red
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 40.61 g
 - *Grain shape (PR)* : Elliptic shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 92014
2. **Restorers** : A1
3. **Pedigree** : IS 271
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 68 days
 - *Days to 50% flowering (PR)* : 79 days
 - *Plant height(R)* : 1.9 m
 - *Plant height (PR)* : 1.1 m
 - *Grain yield (R)* : 4.0 t ha-1
 - *Grain yield (PR)* : 3.8 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 14.1 cm
 - *Panicle length (PR)* : 12.1 cm
 - *Panicle type (R)* : Compact
 - *Panicle type (PR)* : Compact
 - *Panicle exertion (R)* : 1.0 cm
 - *Panicle exertion (PR)* : 2.7 cm
 - *Glume color (R)* : Purple
 - *Glume color (PR)* : Purple
 - *Grain color (PR)* : Light red
 - *1000 – grain weight (PR)* : 34.10 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 92016
2. **Restorers** : A1
3. **Pedigree** : SSV 108-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 77 days
- *Days to 50% flowering (PR)* : 79 days
- *Plant height(R)* : 2.2 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 2.9 t ha-1
- *Grain yield (PR)* : 3.6 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.3 cm
- *Panicle length (PR)* : 22.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 6.3 cm
- *Panicle exertion (PR)* : 6.7 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 38.08 g
- *Grain shape (PR)* : Circular shape in b
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/Su
- *Economic product type* : Forage/Dual purpo



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 92022
2. **Restorers** : A1
3. **Pedigree** : (S 53-1 × ICSP 2B/R MFR S2S BULK)-4
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-13)**
 - *Days to 50% flowering (R)* : 71 days
 - *Days to 50% flowering (PR)* : 72 days
 - *Plant height(R)* : 2.3 m
 - *Plant height (PR)* : 1.4 m
 - *Grain yield (R)* : 1.9 t ha-1
 - *Grain yield (PR)* : 3.2 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 21.2 cm
 - *Panicle length (PR)* : 21.1 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 7.0 cm
 - *Panicle exertion (PR)* : 6.7 cm
 - *Glume color (R)* : Red
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 33.21 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 92023
2. **Restorers** : A1
3. **Pedigree** : (S 53-1 × ICSP 2B/R MFR S2S BULK)-7
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 72 days
- *Days to 50% flowering (PR)* : 77 days
- *Plant height(R)* : 2.1 m
- *Plant height (PR)* : 1.7 m
- *Grain yield (R)* : 2.2 t ha⁻¹
- *Grain yield (PR)* : 3.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 23.9 cm
- *Panicle length (PR)* : 16.2 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 7.3 cm
- *Panicle exertion (PR)* : 7.0 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 35.13 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 92026
2. **Restorers** : A1
3. **Pedigree** : GSS 196
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 75 days
- *Days to 50% flowering (PR)* : 81 days
- *Plant height(R)* : 2.9 m
- *Plant height (PR)* : 1.6 m
- *Grain yield (R)* : 2.4 t ha-1
- *Grain yield (PR)* : 3.0 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 16.0 cm
- *Panicle length (PR)* : 13.6 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 5.3 cm
- *Panicle exertion (PR)* : 6.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 34.60 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 92027
2. **Restorers** : A1
3. **Pedigree** : (PB 10858 × DKV 1)-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-13)

- *Days to 50% flowering (R)* : 74 days
- *Days to 50% flowering (PR)* : 85 days
- *Plant height(R)* : 2.8 m
- *Plant height (PR)* : 1.8 m
- *Grain yield (R)* : 1.2 t ha⁻¹
- *Grain yield (PR)* : 3.0 t ha⁻¹
- *Panicle shape (R)* : Broader in lower part
- *Panicle shape (PR)* : Broader in lower part
- *Panicle length (R)* : 17.9 cm
- *Panicle length (PR)* : 14.3 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 3.0 cm
- *Panicle exertion (PR)* : 9.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 35.39 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 5
2. **Restorers** : A1
3. **Pedigree** : [(SC 108-3 × Swarna) × E 35-1]-8-2-1-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-14)

- *Days to 50% flowering (R)* : 71 days
- *Days to 50% flowering (PR)* : 69 days
- *Plant height(R)* : 1.4 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 3.1 t ha⁻¹
- *Grain yield (PR)* : 1.4 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.9 cm
- *Panicle length (PR)* : 22.3 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 0.0 cm
- *Panicle exertion (PR)* : 1.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 23.32 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 14
2. **Restorers** : A1
3. **Pedigree** : (IS 12611 × SC 108-3)-4-5
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-14)

- *Days to 50% flowering (R)* : 80 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 1.9 t ha⁻¹
- *Grain yield (PR)* : 3.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.6 cm
- *Panicle length (PR)* : 21.3 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 1.0 cm
- *Panicle exertion (PR)* : 5.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 38.81 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 44
2. **Restorers** : A1
3. **Pedigree** : [ET 2039deri × (SC 108-3 × 148)]-29-3-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-14)

- *Days to 50% flowering (R)* : 79 days
- *Days to 50% flowering (PR)* : 85 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 2.4 t ha⁻¹
- *Grain yield (PR)* : 3.0 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 29.6 cm
- *Panicle length (PR)* : 26.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 11.0 cm
- *Panicle exertion (PR)* : 5.7 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.54 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 82
2. **Restorers** : A1
3. **Pedigree** : [(2219B × Swarna) × CSV 4]-11-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-14)

- *Days to 50% flowering (R)* : 75 days
- *Days to 50% flowering (PR)* : 86 days
- *Plant height(R)* : 2.0 m
- *Plant height (PR)* : 1.5 m
- *Grain yield (R)* : 2.4 t ha⁻¹
- *Grain yield (PR)* : 3.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 32.2 cm
- *Panicle length (PR)* : 25.6 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 5.0 cm
- *Panicle exertion (PR)* : 10.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 36.03 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 99
2. **Restorers** : A1
3. **Pedigree** : {[Swarna × CS 3687) × SC 170] × MR 841}-4-4
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-14)**
 - *Days to 50% flowering (R)* : 86 days
 - *Days to 50% flowering (PR)* : 91 days
 - *Plant height(R)* : 1.8 m
 - *Plant height (PR)* : 1.3 m
 - *Grain yield (R)* : 1.4 t ha⁻¹
 - *Grain yield (PR)* : 3.7 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 22.6 cm
 - *Panicle length (PR)* : 24.8 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 4.0 cm
 - *Panicle exertion (PR)* : 5.3 cm
 - *Glume color (R)* : Straw
 - *Glume color (PR)* : Red
 - *Grain color (PR)* : White
 - *1000 – grain weight (PR)* : 31.66 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 132
2. **Restorers** : A1
3. **Pedigree** : (E 12-5 × 2077B)-1-2-3-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-14)

- *Days to 50% flowering (R)* : 77 days
- *Days to 50% flowering (PR)* : 80 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 2.6 t ha⁻¹
- *Grain yield (PR)* : 2.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.4 cm
- *Panicle length (PR)* : 21.8 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 2.3 cm
- *Panicle exertion (PR)* : 6.0 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Straw
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 31.18 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 135
2. **Restorers** : A1
3. **Pedigree** : [(IS 12611 × SPV 104) × IS 12611]-11-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-14)

- *Days to 50% flowering (R)* : 78 days
- *Days to 50% flowering (PR)* : 91 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 2.9 t ha⁻¹
- *Grain yield (PR)* : 4.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.3 cm
- *Panicle length (PR)* : 23.7 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 7.3 cm
- *Panicle exertion (PR)* : 6.7 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 42.46 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 156
2. **Restorers** : A1
3. **Pedigree** : (PS 21221 × ISPYT 2/E#20)-6-3-4-6
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-14)

- *Days to 50% flowering (R)* : 79 days
- *Days to 50% flowering (PR)* : 86 days
- *Plant height(R)* : 2.0 m
- *Plant height (PR)* : 1.6 m
- *Grain yield (R)* : 3.3 t ha⁻¹
- *Grain yield (PR)* : 4.5 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 32.8 cm
- *Panicle length (PR)* : 28.1 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 12.0 cm
- *Panicle exertion (PR)* : 17.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 23.95 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 185
2. **Restorers** : A1
3. **Pedigree** : {2077B × [(Bulk Y × D 181) × SPV 104]}-4-1-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-14)**
 - *Days to 50% flowering (R)* : 80 days
 - *Days to 50% flowering (PR)* : 95 days
 - *Plant height(R)* : 2.0 m
 - *Plant height (PR)* : 1.6 m
 - *Grain yield (R)* : 1.7 t ha⁻¹
 - *Grain yield (PR)* : 3.6 t ha⁻¹
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 28.9 cm
 - *Panicle length (PR)* : 26.9 cm
 - *Panicle type (R)* : Semi compact
 - *Panicle type (PR)* : Semi compact
 - *Panicle exertion (R)* : 5.3 cm
 - *Panicle exertion (PR)* : 12.0 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 28.85 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Summer season
 - *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89002
2. **Restorers** : A1
3. **Pedigree** : [(C 85-1 × SPV 475) × ICSB 12]-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-14)

- *Days to 50% flowering (R)* : 78 days
- *Days to 50% flowering (PR)* : 84 days
- *Plant height(R)* : 2.3 m
- *Plant height (PR)* : 1.5 m
- *Grain yield (R)* : 2.8 t ha-1
- *Grain yield (PR)* : 3.2 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 32.8 cm
- *Panicle length (PR)* : 26.6 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 23.3 cm
- *Panicle exertion (PR)* : 17.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 31.74 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89026
2. **Restorers** : A1
3. **Pedigree** : [(C 85-2 × SPV 351) × MR 929]-1-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-14)

- *Days to 50% flowering (R)* : 80 days
- *Days to 50% flowering (PR)* : 85 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 2.1 t ha⁻¹
- *Grain yield (PR)* : 3.7 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 21.0 cm
- *Panicle length (PR)* : 24.4 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 2.3 cm
- *Panicle exertion (PR)* : 5.3 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Purple
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 33.01 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Grain purpose
hybrid parent
(male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89055
2. **Restorers** : A1
3. **Pedigree** : (PM 11344 × R 2961)-1-1-7-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-14)

- *Days to 50% flowering (R)* : 70 days
- *Days to 50% flowering (PR)* : 88 days
- *Plant height(R)* : 2.0 m
- *Plant height (PR)* : 1.5 m
- *Grain yield (R)* : 4.3 t ha-1
- *Grain yield (PR)* : 2.6 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.2 cm
- *Panicle length (PR)* : 22.4 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 1.0 cm
- *Panicle exertion (PR)* : 1.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 30.11 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89056
2. **Restorers** : A1
3. **Pedigree** : (PM 11344 × R 2961)-2-4-2-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-14)

- *Days to 50% flowering (R)* : 77 days
- *Days to 50% flowering (PR)* : 91 days
- *Plant height(R)* : 2.5 m
- *Plant height (PR)* : 1.5 m
- *Grain yield (R)* : 3.8 t ha⁻¹
- *Grain yield (PR)* : 3.9 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 31.1 cm
- *Panicle length (PR)* : 25.2 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 3.3 cm
- *Panicle exertion (PR)* : 5.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 31.84 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89060
2. **Restorers** : A1
3. **Pedigree** : (PS 21310 × A 7045)-5-3-6-1-1-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-14)

- *Days to 50% flowering (R)* : 81 days
- *Days to 50% flowering (PR)* : 89 days
- *Plant height(R)* : 1.6 m
- *Plant height (PR)* : 1.1 m
- *Grain yield (R)* : 1.9 t ha⁻¹
- *Grain yield (PR)* : 3.9 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 24.0 cm
- *Panicle length (PR)* : 21.1 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 1.0 cm
- *Panicle exertion (PR)* : 2.0 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 24.27 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89062
2. **Restorers** : A1
3. **Pedigree** : (PS 21314 × D 71383)-4-2-2-3-1-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-14)

- *Days to 50% flowering (R)* : 80 days
- *Days to 50% flowering (PR)* : 86 days
- *Plant height(R)* : 1.5 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 1.8 t ha⁻¹
- *Grain yield (PR)* : 3.6 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 22.2 cm
- *Panicle length (PR)* : 22.7 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 3.0 cm
- *Panicle exertion (PR)* : 14.0 cm
- *Glume color (R)* : Green
- *Glume color (PR)* : Green
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 28.12 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 89070
2. **Restorers** : A1
3. **Pedigree** : (PS 14454 × ICSV 1)-1-2-1-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-14)

- *Days to 50% flowering (R)* : 78 days
- *Days to 50% flowering (PR)* : 79 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 3.2 t ha⁻¹
- *Grain yield (PR)* : 3.1 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.3 cm
- *Panicle length (PR)* : 25.0 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 10.7 cm
- *Panicle exertion (PR)* : 8.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 27.68 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 90002
2. **Restorers** : A1
3. **Pedigree** : [(C 85-2 × ICSV 1) × MR 929]-1-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-14)

- *Days to 50% flowering (R)* : 82 days
- *Days to 50% flowering (PR)* : 84 days
- *Plant height(R)* : 3.0 m
- *Plant height (PR)* : 2.0 m
- *Grain yield (R)* : 1.3 t ha-1
- *Grain yield (PR)* : 3.8 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 12.3 cm
- *Panicle length (PR)* : 12.4 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 2.0 cm
- *Panicle exertion (PR)* : 10.7 cm
- *Glume color (R)* : Purple
- *Glume color (PR)* : Purple
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 42.67 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 90013
2. **Restorers** : A1
3. **Pedigree** : (PM 14403-1 × SPV 422)-20-2-1-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-14)

- *Days to 50% flowering (R)* : 88 days
- *Days to 50% flowering (PR)* : 90 days
- *Plant height(R)* : 2.5 m
- *Plant height (PR)* : 1.6 m
- *Grain yield (R)* : 1.8 t ha-1
- *Grain yield (PR)* : 4.2 t ha-1
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 22.8 cm
- *Panicle length (PR)* : 23.0 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi compact
- *Panicle exertion (R)* : 11.3 cm
- *Panicle exertion (PR)* : 14.3 cm
- *Glume color (R)* : Red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : White
- *1000 – grain weight (PR)* : 23.95 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 90018
2. **Restorers** : A1
3. **Pedigree** : (CSV 4 × IS 2312)-5-1-1-5-1
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-14)

- *Days to 50% flowering (R)* : 74 days
- *Days to 50% flowering (PR)* : 88 days
- *Plant height(R)* : 1.9 m
- *Plant height (PR)* : 1.4 m
- *Grain yield (R)* : 2.8 t ha⁻¹
- *Grain yield (PR)* : 2.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 28.6 cm
- *Panicle length (PR)* : 25.2 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 12.3 cm
- *Panicle exertion (PR)* : 8.3 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 30.69 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Postrainy/
Summer season
- *Economic product type* : Forage/Dual
purpose hybrid



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 90019
2. **Restorers** : A1
3. **Pedigree** : (PS 19230 × ICSV 1)-9-1-2-2
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-14)

- *Days to 50% flowering (R)* : 80 days
- *Days to 50% flowering (PR)* : 83 days
- *Plant height(R)* : 2.0 m
- *Plant height (PR)* : 1.2 m
- *Grain yield (R)* : 1.8 t ha⁻¹
- *Grain yield (PR)* : 3.2 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 23.3 cm
- *Panicle length (PR)* : 21.0 cm
- *Panicle type (R)* : Semi compact
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 2.3 cm
- *Panicle exertion (PR)* : 6.0 cm
- *Glume color (R)* : Straw
- *Glume color (PR)* : Straw
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 23.85 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Forage/Dual purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 90027
2. **Restorers** : A1
3. **Pedigree** : (PS 14413 × ICSV 112)-1-5-2-1-3
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding

6. Salient characteristics (Refer Annexure I-14)

- *Days to 50% flowering (R)* : 77 days
- *Days to 50% flowering (PR)* : 82 days
- *Plant height(R)* : 1.7 m
- *Plant height (PR)* : 1.3 m
- *Grain yield (R)* : 2.7 t ha⁻¹
- *Grain yield (PR)* : 3.8 t ha⁻¹
- *Panicle shape (R)* : Symmetric
- *Panicle shape (PR)* : Symmetric
- *Panicle length (R)* : 27.8 cm
- *Panicle length (PR)* : 24.9 cm
- *Panicle type (R)* : Semi loose
- *Panicle type (PR)* : Semi loose
- *Panicle exertion (R)* : 9.0 cm
- *Panicle exertion (PR)* : 5.7 cm
- *Glume color (R)* : Light red
- *Glume color (PR)* : Light red
- *Grain color (PR)* : Cream
- *1000 – grain weight (PR)* : 29.03 g
- *Grain shape (PR)* : Circular shape in both dorsal and profile view
- *Resistance to (if any)* :

7. Potential use

- *Adaptation* : Rainy/Summer season
- *Economic product type* : Grain purpose hybrid parent (male)



Note: R= Rainy season, PR= Postrainy season

ICRISAT Sorghum Restorer line

1. **Designated number** : ICSR 92001
2. **Restorers** : A1
3. **Pedigree** : [(IS 2350 × MB 9) × SPV 351]-6-1-1-5
4. **Origin & Development** : Refer text (page # 2-3)
5. **Breeding trait group** : High yielding
6. **Salient characteristics (Refer Annexure I-14)**
 - *Days to 50% flowering (R)* : 77 days
 - *Days to 50% flowering (PR)* : 88 days
 - *Plant height(R)* : 1.9 m
 - *Plant height (PR)* : 1.5 m
 - *Grain yield (R)* : 2.7 t ha-1
 - *Grain yield (PR)* : 4.5 t ha-1
 - *Panicle shape (R)* : Symmetric
 - *Panicle shape (PR)* : Symmetric
 - *Panicle length (R)* : 24.3 cm
 - *Panicle length (PR)* : 24.1 cm
 - *Panicle type (R)* : Semi loose
 - *Panicle type (PR)* : Semi loose
 - *Panicle exertion (R)* : 2.0 cm
 - *Panicle exertion (PR)* : 9.7 cm
 - *Glume color (R)* : Light red
 - *Glume color (PR)* : Light red
 - *Grain color (PR)* : Cream
 - *1000 – grain weight (PR)* : 37.04 g
 - *Grain shape (PR)* : Circular shape in both dorsal and profile view
 - *Resistance to (if any)* :
7. **Potential use**
 - *Adaptation* : Rainy/Postrainy/
Summer season
 - *Economic product type* : Forage/Dual
purpose hybrid
parent (male)



Note: R= Rainy season, PR= Postrainy season



About ICRISAT®



The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) is a nonprofit, non-political organization that does innovative agricultural research and capacity building for sustainable development with a wide array of partners across the globe. ICRISAT's mission is to help empower 600 million poor people to overcome hunger, poverty and a degraded environment in the dry tropics through better agriculture. ICRISAT belongs to the Alliance of Centers of the Consultative Group on International Agricultural Research (CGIAR).

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